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THE
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COMPARATIVE ANTHROPOLOGY OF ENGLAND AND
WALES.*

By D. MACKINTOSH, F.G.S.

"Let some Fellow also do for England what M. Paul Broca has done so well for France, and write us a Memoir on the Ethnology of England."—
Dr. JAMES HUNT, *Anniversary Address before the Anthropological Society of London*, delivered January, 1864.

IN 1861 I read a paper before the Ethnological Society of London, entitled "Results of Ethnological Observations made during the last ten years in England and Wales." Up to that time ethnology had generally been treated as a branch of philology, archæology, or history. It could not be said to have had an independent foundation, or to have acquired the rank of a distinct department of science. Many, perhaps the majority, of those calling themselves ethnologists did not believe in ethnology according to the most approved and authoritative meaning attached to that word, namely the science of blood, or races of mankind resulting from genealogical descent. The attempt to classify races in Europe, and especially in England, was then generally looked upon as presumptuous, or, at least, as not likely to lead to a satisfactory result. In the discussion which followed the reading of the above paper, one of the Fellows considered the attempt as dangerous, by which I suppose he could only mean dangerous to preconceived theories. Several of the speakers favoured the views of the author, but the majority seemed to agree in thinking that the races described in the paper as occurring in England and Wales were not due to lineal descent from tribes of early inhabitants, but either arose by accident

* We propose to publish, from time to time, a series of personal observations on the Comparative Anthropology of the British Islands.—EDITOR.

or according to a law by which human beings become adapted to circumstances or occupations. It was likewise alleged that to substantiate the doctrine of genealogical derivation would require the discovery of counterpart races in those districts of Europe from which England was colonised.

As there would still appear to be a great indisposition to believe that distinct, hereditary, and long-persistent races or types can be traced in different districts of England, it may be necessary, before proceeding to a statement of facts, to make a few general observations.

Alleged Disappearance of Types by Crossing.—It is not to be wondered at that those who have had few opportunities of making particular and repeated* observations in different parts of England, should doubt the possibility of *types*† of mankind being perpetuated, more especially as we are continually reminded by the newspaper press of migrations taking place from one town or province to another. Previously to travelling, or as long as we are contented with being library anthropologists, we are likely to be left in ignorance of the extent to which the masses of the English population still cling to their native districts. Internal migration in England is generally limited to the middle or more affluent classes. The great bulk of the people very seldom shift their localities, except in manufacturing districts, and even then it could be shown that at least three-fourths of the inhabitants of a manufacturing town, such as Sheffield, have either been born in the town or have come from the neighbourhood. Railways in many respects have favoured migration, but it could be shown that in quite as many cases they have rendered a change of residence unnecessary. But the fact that different dialects still linger in different parts of England is a sufficient proof that the interblending of races has not proceeded to an extent capable of destroying typical distinctions, or rendering the classification of the inhabitants impossible. The uneducated natives of one anthropological area‡ are still nearly unintelligible to those of another area. In one area at least nineteen-twentieths of the people still say *we* for *us*, *her* for *she*, *I* for *me*, and *vice versa*. They likewise pronounce *s* as if written *z*, *t* as *d*, etc.§ This area includes a part of

* If repeated observations are necessary in geology to insure an arrival at truth, they are still more so in anthropology—a science in which the phenomena are much less strongly marked, and the boundary lines less distinctly defined.

† I shall principally use the word *types* in this article, because in an infant science, like anthropology, more systematic names are premature.

‡ A district, without reference to county divisions.

§ These modes of speech are used not by one race, but by several races, who must have come from the Low Countries, at a period or periods unrecorded in history. National and British school education, I have found, has

Dorsetshire and Wiltshire, nearly the whole of Somersetshire (Zomersetshire) and a part of Devon. In a churchyard between Salisbury and Wilton, I have seen the following epitaph :—

“How strangely fond of life poor mortals be;
How few who see our beds would change with *we*,” etc.

The traditional characteristic epitaph of the above area would appear to be—

“Her no more shall come to *we*,
But us must go to *she*.”

The remark of a working man of Dorchester, in reference to a scolding wife, shows that these peculiar modes of speech are not incompatible with sound philosophy—“It pleases *she*, and it don't hurt *I*.”

Proofs of Typical Perpetuation furnished by Surnames.—Besides dialects, surnames show that the people of many parts of England have escaped interblending. In one area we find prevailing surnames; in other areas these surnames are almost entirely absent. There are large districts in the south-west of England where one might travel for days without meeting with a Smith, while in the east of England there are equally large districts in which Smith is the most common name. A long article, elaborated from Directories, might be written on the local limitation of surnames. Christian names are more uniformly distributed, though I think it will be found on inquiry that in the north-east or Scandinavian part of England there is a very much less tendency to use Scripture names than in the south, where in some places it amounts to little short of a propensity. Some years ago (and it may be so still) the name of the Librarian of the Ryde Literary and Scientific Institution was Nebuchadnezzar Belshazzar Pentecost!

Presumptions in favour of Genealogical Derivation.—That the difference in type or race which, during many years, I have had opportunities of tracing in various parts of England, is not the result of accident, or of a merely *teleological law*, but exists through *hereditary descent*, is rendered highly probable, in the absence of more satisfactory evidence, by the fact that distinct dialects are often, if not generally, spoken by races having distinct physical and mental peculiarities—that these races inhabit areas colonised from certain parts of Europe—and that these dialects (except where reasons to the contrary can be assigned) are in accordance with the historical account of their derivation. A whole article, or rather volume, might be written on this

done very little to obliterate peculiarities of dialect among the working classes, partly owing to the time at school being too brief to admit of a permanent impression being produced; but likewise owing to the *high-pressure system* generating a dislike to education among children, who, on leaving school, gladly forget what they have been taught.

subject, and much has been written. Suffice it at present to remind the reader that in Cumberland, Westmoreland, and several neighbouring districts, many traces of *Norse* may be found,* and many family names are Norwegian. In Lincolnshire, many words in the dialect, and many family names are not only of Danish derivation, but in numerous cases the latter have continued unaltered in the spelling since the time of the Scandinavian invasions.† Now if the names of persons in use among ancient *colonising* tribes are still to be found in the *colonised* districts, is it not probable that the physical and mental peculiarities of these tribes have likewise persisted? or rather, is the anthropologist not justified in taking this for granted until the contrary can be shown.

How Types are to be determined.—Admitting the force of the foregoing remarks, and allowing that types may be classified in various districts, the important question still remains, what names are we to employ? If only one uniform type existed in a given locality, the task would be easy. But when in most districts (not all) we find two or more distinguishable types, how are we to tell which is Danish, which Saxon, etc.? It is here that the anthropologist may readily lay himself open to a charge of presumption, unless he proceeds with extreme caution. There would, however, appear to be several ways of arriving at approximately satisfactory conclusions on this subject.

First, we may compare the existing mental and (as far as possible) physical peculiarities of a given type with the historically-recorded character of either the original type, or colonising type, of the locality.

Second, we may collect traditions concerning the complexion, stature, etc., of certain types.

Third, we may visit regions, or rely on the accounts of those who have visited regions, either in the British Isles or on the continent, where we have reason to believe a given type prevails uniformly, or is very decidedly predominant.

With regard to the first, it is desirable that the anthropologist should render himself well acquainted with the character of the ancient Saxon, Dane, etc., as illustrated in such books as Bulwer's *Harold, the last of the Saxon Kings*, Mallet's *Northern Antiquities*, etc.

* Since the publication of Worsaae's very valuable contribution to anthropology, *Traces of the Danes and Norwegians in England*, etc., it has become more and more customary to refer words commonly regarded as Saxon to Norse, or Danish. Capt. Fergusson, President of the Carlisle Mechanics' Institution, has lately published an important work on the dialects of Cumberland.

† Of this I was assured some years ago by the very eminent, though not professed, anthropologist, Sir E. B. Lytton, several of whose novels might justly be styled *studies in anthropology*.

Traditions are not always to be trusted, but a traveller is often struck with the extent to which the inhabitants of various parts of England agree in assigning characteristics to ancient colonising or native tribes, such as ruddiness and tall stature to the Danes, blue eyes and lymphatic temperament to the Saxon, dark complexion and excitable temper to the ancient Britons, etc.

Much caution ought to be exercised in selecting regions likely to contain an all-prevalent or preponderating type. It is true one could scarcely err in visiting certain parts of Norway, the Orkney Islands, and some parts of the Hebrides (where Norsemen have kept aloof from the Gaels), in order to make out a type to which the name Norse might be applied—in going to some parts of Denmark (not West or South Jutland) in quest of the Danish type.* For Saxons one might explore the country between the Elbe and the Weser, steering clear of Friesland—for Angles, the district called Anglen in Schleswig, where Dr. Clarke, the traveller, could fancy himself in England. For the Jutian type, the anthropologist might visit the west of Jutland, from Schleswig to the Lime Ffiord—for Frisians, the region commonly called Friesland would probably answer his purpose better than Strandfrisia; for linguistic† considerations render it certain that England was largely colonised from the country to the east of the Zuyder Zee. One might expect to find pure Britons in Wales, and Gaels in the West Highlands of Scotland, though in both these countries the people are far from being homogeneous.

That the lineal descendants of ancient tribes may still be recognised in various parts of England, is not so much doubted by people in general, as by those whose minds are prepossessed by certain theories concerning the origin of admitted typical differences among mankind. The science of comparative anthropology, or that department of it—comparative ethnography, to which this article is mainly confined—is at present in a state somewhat resembling geology in the days of Dr. Hutton and Professor Playfair. These truly great philosophers wisely abjured all *speculations concerning the origin of things*. But when Dr. Hutton used these or similar words, he did not mean to exclude the

* At the British Association meeting at Birmingham in 1865, I was not surprised to see in Professor Steenstrup, the eminent Danish antiquary, a *fac-simile* of a physiognomy very common in the east and north of England.

† For all questions connected with what may be called glossological ethnography, Dr. Latham's works are the best that can be consulted. That eminent author does not seem to place much faith in ethnology as the science of blood; though I ought to acknowledge my obligations to him, many years ago, for leading me to believe that the prominent-mouthed type, so prevalent in the south-west of England, is only a less exaggerated form of the Irish Gael.

origin of *derivative* phenomena, but only what may be appropriately called the *first* origin of things ; and although the question of the first origin of man lies more within the province of geology than anthropology, the changes or causes which have given rise to typical distinctions among men may be advantageously considered, before proceeding to a detailed statement of these distinctions as observed in England and Wales.*

Causes of Typical Distinctions.—Mr. Darwin has rendered great service to natural history by showing that a slight variation from an ancestor is capable of continued hereditary transmission. He has, however, I think, generalised beyond foundation in regarding all the modifications to which the organic world has been subjected as slight, or in supposing that species have arisen by almost insensible gradations. In the inorganic world—in the provinces of water and fire, we find gradual mutation alternating with *crises* of action, or a series of ordinary changes followed by a sudden paroxysm. The aqueous and igneous agents which modify the crust of the earth are more or less intermittent. Comparative repose in fluvial, oceanic, and volcanic action, is succeeded by floods, storms, eruptions, and explosions ; and there can be no reason for supposing, apart from palæontological evidences to the contrary, that all the variations from ancestral organic types have been minute, or for denying that “strides in the otherwise continuous chain of succession”† may not have frequently occurred. These minute variations and strides are equally to be regarded as *creations* unless we “deify second causes ;” and I can see no reason why the creational act which gives rise to a perceptible *family* variation, may not, at intervals, introduce a *specific* or *generic* variation. A general survey of the higher results of scientific investigation would appear to favour the doctrine that in the economy of the universe there are subsidiary laws dependent on a more comprehensive plan ; and the sudden introduction of new species is just what one might expect to mark the ingress or egress of one of these laws.‡

* On the first appearance of his *Principles of Geology*, Sir Charles (then Mr.) Lyell was accused by some reviewers of putting the cart before the horse—of discussing the respective merits of an unimpaired and uniform series of changes, and a succession of catastrophes diminishing in intensity, before proceeding to a statement of facts showing the adequacy of existing causes to account for ancient geological phenomena. But the order adopted by Lyell was the best calculated to prepare the mind of the reader not only to appreciate, but to take an interest in, the mass of circumstantial evidences, or *veræ causæ*, contained in that justly celebrated work.

† See Lyell's *Antiquity of Man*.

‡ I think all anthropologists must admit that no positive evidences in favour of there having been a series of consecutive connecting links between

But one part of Darwin's theory certainly accounts for anthropological phenomena not otherwise easily explained. In the *Fortnightly Review* (III, 276), Professor Huxley has applied this theory to the origin of typical distinctions among men. Variations occur in a family—one variation dies out, another is preserved. It becomes isolated. By hereditary transmission its peculiarities become hardened into the “enduring character of persistent modification.” According to this view, it is not necessary that a type should amount to a *specific* distinction to enable it to be hereditarily transmissible. A variation is possessed of this power, and would seem to be subjected to a law preventing a return to the original. When it has become hardened into a “persistent modification,” it may endure for many, if not for thousands of years, as is evident from geology. We have only then to suppose that the types under consideration in this article were originally family variations in certain parts of Europe—that they gradually acquired a persistent character—that they have continued *until now*, and will continue until the law* which limits the period of their perpetuation shall replace them by new variations, destined in their turn to become invested with enduring characteristics.

Among men there would appear to be types which have become sufficiently hardened to resist amalgamation, and even in England many phenomena would seem to indicate that hybridity is followed by extinction or reversion to the original. In some parts, where interblending has occurred to a great extent, we still find distinct types identifiable with those which may be classified in remote and comparatively unmixed districts; and very frequently two or more types may be seen in the same family. In many cases, typical amalgamation does not apparently take place at all, but the children of two parents of distinct types follow or “favour” the one or the other parent, or occasionally some ancestor more or less remote.

We have no reason to suppose that the comparatively brief period, geologically speaking, with which the anthropologist has to deal, is sufficiently long to reveal any processes by which new types are intro-

the anthropoid apes and man have yet been discovered. The theory of his anthropoid derivation, then, must rest on the assumption that these links have disappeared, or remain to be discovered—an assumption inadmissible in *inductive* science. From the latest discussions on the Neanderthal skull, it would appear to be allied to *Gaelic*.

* I think Mr. Darwin errs in supposing, or allowing his readers to suppose, that variations capable of originating persistent modifications are accidental. We cannot conceive of their giving rise to phenomena which admit of being systematically classified without believing them to form part of a fixed system. See some able remarks on this subject, in the *Anthropological Review*, vol. iii, p. 130.

duced, so that we are justified in classifying the types which come under our notice as if they were unalterably fixed.

During the last fifteen years, I have had occasion to reside successively, and often repeatedly, in most towns of any importance in England and Wales; and I have devoted particular attention to the characteristics of the inhabitants of the surrounding districts. The people of some localities I have not been able to classify at all. In other localities, I have not felt justified in applying historical names to the typical peculiarities of the inhabitants. A description of those types, with their lateral gradations, which I have been able to make out, will form the remaining part of this memoir.

Types in North Wales.—I begin with the Welsh, not because they are really more easily classified, but because the reader will probably be more ready to believe that types may be met with in the Principality than in England.

On arriving in North Wales in 1861, I was not much surprised to find the inhabitants differing from one another, as I had previously observed a similar absence of homogeneity in South Wales. About the same time, Dr. Barnard Davis, and Dr. Beddoe, passed along the north coast on their way to Ireland, and I believe were surprised at the diversity of countenances presented by the Welsh. After a series of systematic observations, continued for several months, I succeeded in reducing the differences to the four following types:—

First, the prevailing type in North Wales, with its lateral gradations, I had an excellent opportunity of observing during a great Calvinistic Methodist gathering at Mold, Flintshire. On that occasion, at least nine-tenths of the adult men and women presented the following characteristics:—stature various, but often tall—neck more or less long—loose gait—dark brown (often very dark) and coarse hair—eyes sunken and ill-defined, with a peculiarly close expression—dark eye-lashes and eye-brows—eye-basins more or less wrinkled. The face was long or rather long, narrow or rather narrow, and broadest under the eyes. There was a *sudden sinking in under the cheek-bones*, with denuded cheeks. The chin was rather narrow and generally retreating, though sometimes prominent. The nose was narrow, long or rather long, much raised either in the middle or at the point, and occasionally approaching the Jewish form (see fig. 5). The forehead was rather narrow but not retreating—the skin wrinkled, and either dark or of a dull reddish-brown hue—the skull rather narrow and rather elongated. (See figures 1, 2, 3, 4.)

Second Type in North Wales.—To the west of Mold, comparatively flat faces begin to make their appearance, and increase in number until in Carnarvonshire they are very common. In this type, as in the last,

the face is broadest under the eyes, with a *sudden sinking in under the cheek-bones*. The *nose* is sometimes highest in the middle, but more frequently *projecting at the point*. The eyes are sunk and often half closed. The mouth is well formed, with the chin more or less prominent. The forehead in general is broad, high, and capacious. The stature is short or middle-sized, with broad chest and shoulders—the complexion dark, with brown or dark brown hair—the skull broad and approximately square. (See figures 7, 8, 9.)

This type may be traced in considerable numbers along the western part of Wales as far as Pembrokeshire. It is likewise not unfrequent in Central Wales as far east as Montgomery, and it is very common in the West Midland Counties of England. In many parts of South Wales it predominates.

Third Type in North Wales.—Rather full and massive face—decidedly dark and often curly hair—dark whiskers, eye-brows, eye-lashes, and eyes—tall or rather tall and massive frame—skull approximately round. This type, which may be found in small numbers in both North and South Wales, is generally confined to the more prosperous inhabitants. It is not very dissimilar to a type which in Ireland has been called Milesian. It is not uncommon in Monmouthshire, and may possibly be of *Silurian* derivation. (See figures 10, 11.)

Fourth Type in North Wales.—This type presents a greater or less approximation to what I would call the Gaelic type (see sequel). In some places it is strictly Gaelic; in others it graduates into the first or prominent-nosed Welsh type, or into the comparatively flat-faced Welsh type. About Bangor it often presents a resemblance to the Jewish profile. On the occasion of a Criminal Court meeting at Beaumaris, in Anglesea, I observed this type presenting the extreme profile represented in fig. 15. The Gaelic type, however, it ought to be stated, is not very prevalent in Anglesea, or indeed in any part of North Wales.*

Mental Characteristics of the Welsh.—The following characteristics apply only to the first, second, and partly to the third of the Welsh types above described—(the Gaelic peculiarities will be found in the sequel):—Quick in perception—more critical than comprehensive—decidedly adapted to analytical research, and especially to philological and biblical criticism (the foregoing characteristics apply more particularly to the second Welsh type)—*extreme tendency to trace back ancestry*—great genealogists, and by race comparative anthropologists—

* At Beaumaris I met with an excellent specimen of the highest development of the second Welsh type, in the person of John Williams, Esq., solicitor, who is not only an accomplished general scholar, but an eminent theological musician, antiquarian, and comparative anthropologist.

poetical as regards the expression of deep feeling, but deficient in buoyancy of imagination—free from serious crimes, and very peaceable, with the exception of a tendency to cherish petty animosities which seldom break out into open hostilities—extreme tendency to religious excitement—economical, saving, and industrious to a fault—temperate, with a strong susceptibility to temptation when brought in contact with, or treated by, the English. The North Welsh, as a people, are decidedly superior to the *mass* of the English population; but the gentry of North Wales are in general behind in mental cultivation.

Among the more serious failings of the Welsh must be reckoned extreme parsimony, which, however, only degenerates into cheating when directed to the Saxon robbers of their ancestors.* The failing most commonly believed to be characteristic of the Welsh is a want of strict regard to truth. This failing, which is by no means so general in Wales as is often represented, I should be inclined to attribute to two causes—first, the existence of contradictory faculties in a Welshman's mind (this remark is most applicable to the second Welsh type). Thus, strong love of approbation may co-exist with equally strong covetousness, so as to lead a Welshman to promise what he either cannot bring himself to perform, or what lies beyond his power. Second, the nature of the Welsh language, which is not well adapted to express minute distinctions between truth and falsehood, and which by its constant use may encourage a tendency to ambiguity. How, it may be asked, can we harmonise a want of precision in the language with the eminence in philological and biblical criticism to which many Welsh scholars have attained? I think it does not follow that the original language of all the Welsh types was what is now called *Cumraeg*. The difference in dialects in various parts of the principality suggests the possibility of the present written or standard Welsh having been super-imposed on the original languages of at least some of the types. I have been informed that the names of many hamlets and farmsteads in North Wales are not *Cumraeg*, but have apparently been derived from a pre-

* The tendency among the inhabitants of some parts of Wales to cheat Englishmen, has been very greatly exaggerated. It is well known that at the inns of North Wales the charges are generally very much lower than in England; and, in the interior of South Wales, I have met with instances of disinterestedness, accompanying a sense of honour, which might be looked for in vain in most parts of England. With regard to Welsh inns, many favourable specimens may be found, not only as regards comfort, order, and systematic arrangement, but likewise as regards the intelligence and high character of the proprietors, throughout all parts of the Principality.

viously existing language. If this be a fact, it deserves to be particularly investigated.

Moral Condition of North Wales.—In most (not all) parts of North Wales, the moral condition of the working classes stands higher than in England. Infanticide is almost entirely unknown, and marriage as a rule is the consummation of what otherwise might be regarded as a reprehensible freedom of intercourse among men and women. The Welsh are too frugal and parsimonious to be guilty of those vices connected with extravagance, which are the very worst failing of the inhabitants of the larger towns of England. Though in certain respects excitable, they care little for those comic and sensational entertainments which, in England, form the keenest enjoyments of the mass of the population. There is likewise but little taste for those field sports which in England are more or less associated with gaiety. The Welsh are in general strangers to luxurious living, and many large villages might be mentioned with only one or two public houses, and these indifferently supported. The social order observable in some villages and towns can scarcely be exaggerated. Behind my apartments in Denbigh there was a row of cottages inhabited by men, women, and children, but so quiet* were the inmates, that after 9 p.m. I do not recollect having heard a single sound proceeding from these cottages during three weeks, excepting a hymn-tune on a Sunday. The village of Glan Ogwen, misnamed Bethesda, near the Penryn slate quarries, would, in England, be considered a model village, as regards order, quietude, temperance, and early hours. Reading, music, and religious meetings monopolise the leisure of the inhabitants. Their appreciation of the compositions of Handel, and other great musicians, is remarkable; and they perform the most difficult oratorios with a precision of time and intonation unknown in any part of England, except the West Riding, Lancashire, Worcester, Gloucester, and Hereford.

Music in North Wales.—The musical ear of the Welsh is extremely accurate. I was once present in a village church belonging to the late Dean of Bangor,† when the choir sung an anthem composed by their

* A traveller who expects to find in a Welshman the brother of an Irishman, is often surprised at the taciturnity characterising the former. In some parts of Wales, I have noticed this taciturnity prevailing to a very great extent, especially among the women. With them, even to smile is a very rare occurrence.

† It would be difficult to single out a dignitary of the Church of England, at any period of its history, who so completely devoted himself to the social, intellectual, and moral improvement of the people, as the late Dean of Bangor. His humility and activity were alike unbounded; and to the deepest reverence for things sacred he united the most brilliant conversational talent. He once assured me that the Welsh language is not nearly so un-

leader, and repeated an unaccompanied hymn-tune five or six times without the slightest lowering of pitch. The works of Handel, Haydn, Beethoven, and Mozart, are republished with Welsh words at Ruthin, and several other towns, and their circulation is almost incredible. At book and music shops of a rank where in England negro melodies would form the staple compositions, Handel is the great favourite; and such tunes as *Pop goes the Weasel* would not be tolerated. The native airs are in general very elegant and melodious. Some of them, composed long before Handel, are in the Handelian style; others are remarkably similar to some of Corelli's compositions. The less classical Welsh airs in 3-8 time, such as Jenny Jones, are well-known. Those in 2-4 time are often characterised by a sudden stop in the middle or at the close of a measure, and a repetition of pathetic slides or slurs. The Welsh are so musical that most of the Calvinistic Methodist preachers intone instead of merely delivering their sermons.

Religion in North Wales.—The Welsh, especially the North Welsh, are very religious, and the statistics of the country demonstrate that religion has done much to improve their moral condition. For every one who attends a place of worship in the more Scandinavian districts of England there are at least eight in North Wales. The religion is chiefly Calvinistic Methodism, which affords scope for the exercise of excited feeling and emotion. The Welsh are naturally a dramatic people,* and with them religious services are often converted into solemn dramatic entertainments. While at Llangollen I heard of a celebrated Welsh divinet (blind in one eye) opening a chapel on a wild hill-side not far from Bala lake. The subject was the progressive development of the Christian scheme from Adam to the final judgment. The prophets were made *dramatis personæ*, and the preacher represented them rising from the dead, appearing on the stage of time at the last day, and vindicating the correctness of their predictions concerning the Messiah.

Remarks on South Wales.—The first-mentioned, or long and high-musical as is commonly supposed, and that he had no difficulty in getting Welsh children to pronounce such words as *lions* and *tigers* with great elegance; but that, in Nottinghamshire, he never succeeded in getting young persons to pronounce these words otherwise than as *loyons* and *toygers*.

* I cannot resist the belief that Shakespeare, if not a Welshman, was more allied to the Cymrian type, or one of its lateral variations, than any other type yet classified. In his native district, at least half of the inhabitants differ very little from the Gaelic-British and Cynrian-Welsh. To call Shakespeare a Saxon, would be to show a total ignorance of the science of races; though I should not like to be too confident in asserting that he was not a Dane.

† See Fig. 10.

featured physiognomy of North Wales (which, for convenience, I shall call CYMRIAN) becomes flatter and shorter as we proceed southwards through Central Wales, until in most parts of South Wales the comparatively flat-faced or second type (which I shall call BRITISH) is found to preponderate. This style of physiognomy is generally accompanied by very broad shoulders. The late eminent antiquarian, Archdeacon Williams, once informed me that about the time of the French Revolution 1,000 Cardiganshire volunteers were found on a certain occasion to take up as much room as 1,200 Midland County men (Angles and Danes?) In Glamorganshire and other parts of South Wales, I observed that, in addition to the above type, a large proportion of the inhabitants (chiefly the working classes) presented a greater or less approximation to what I have called the Gaelic physiognomy with the under part of the face projecting forwards.* (See figures 12, 13, 14.) This accords with the opinion of a very intelligent prize historian (Mr. Stevens, chemist, Merthyr Tydvil) that the first traceable inhabitants of Wales were Gaelic Britons, and that the Cymri from Strathelwyd† on entering Wales drove the pre-occupants to the South. The native music of South Wales is likewise to a great extent Gaelic, or similar to what we find in the more Gaelic districts of Scotland and Ireland—that is, in 6-8 time, and in the minor mode, with an ascending as well as descending flat sixth and seventh.

The mental characteristics of the South Welsh include these already stated in connection with the inhabitants of the North; but in most parts of the South the people differ from the North Welsh, and their dialects likewise differ. This may arise from the amount of Gaelic and British blood in the South, and from the extent to which the coast has probably been colonised from the south-west of Europe. Generally speaking, the South Welsh, though often very taciturn, are more excitable than in the North—more given to extremes—less orderly—and more divided among themselves. The Glamorganshire men have an antipathy to the Cardiganshire men, and other tribes are mutually at variance. In Caermarthenshire the people are very intellectually disposed. The chief ambition among young men in that county is to become speakers or preachers, and the congregational pulpits of England are largely supplied from Caermarthenshire and the neighbourhood. In the peninsulas, such as Gower, the descendants of Teutonic, chiefly

* About Merthyr Tydvil, a profile about midway between Gaelic and British seemed the most prevalent. See Fig. 6. One very occasionally meets with Fig. 16 in South Wales.

† A district lying between the rivers Clyde in Scotland, and the Mersey in England. Mr. Stevens has proved that some of the best Welsh poems were composed in Strathelwyd.

Flemish, colonists, may be found. It has been remarked that they make very much better sailors than the Welsh. The history of Pembrokeshire, or "Little England beyond Wales," is very well known.* I have been assured that the boundary line between the Flemings and Welsh is still sharply defined.

Along the borders of North and South Wales the people are more naturally intellectual than in any other part of England; Hertfordshire, Essex, Cambridgeshire, and Hampshire, perhaps excepted. In a long district running between Taunton and Oswestry—extending as far west as Hay, and as far east as Bath and Bewdley, science, especially geology, receives at least ten times more attention than it does in any other equally-sized area. This conclusion I have arrived at from personal observation, and it is corroborated by the comparative number of Fellows living in this district whose names may be found in the list of the Geological Society. It is difficult to explain this fact without supposing it to be connected with the Welsh derivation of many of the inhabitants, who may be regarded as Anglicised Welsh. It cannot arise from superior elementary education, for that is defective throughout the greater part of the district. Neither can mining pursuits be the cause, for the working miners are not the most intelligent part of the population. In the adjacent parts of Wales where English is spoken, we likewise find a greater taste for solid knowledge than in the heart of England. The little and poverty-stricken town of Montgomery, with its immediate neighbourhood, contains more than a dozen thoroughly informed and deep-thinking geologists; whereas a traveller might visit a dozen towns of the same size in Leicestershire, Lincolnshire, or East Yorkshire, without meeting with a single geologist. Ludlow, on the Welsh borders, possesses the best local geological museum in England.

Types in the West and South-West of England.—A considerable proportion of the inhabitants of the West Midland and South-western counties are scarcely distinguishable from three of the types found in Wales, namely the British, Gaelic, and Cymrian. In Shropshire, and

* The following history of settlers in Gower and Pembrokeshire is the most satisfactory I have been able to obtain:—In 1099, Henry Beaumont, Earl of Warwick, planted a colony of Somersetshiremen in Gower. About the year 1106, a tremendous storm carried away embankments and sand hills, allowing the sea to overflow a great tract in Flanders. A numerous body of the inhabitants sought refuge in England. They were first admitted into the northern counties; but, disagreeing with the English, they were removed to the district of Roos in Pembrokeshire. They are said to have afterwards disappeared. In the time of King Henry, a second body of Flemings came into England, and the king, wishing to oppose the power of Gryffydd ab Rhys in South Wales, sent them into Pembrokeshire.

ramifying to the east and south-east, the Cymrian* type may be found in great numbers, though not predominating (see *Anglian*). It seems probable that among the earliest inhabitants of the West and South-West of England, Britons, Gaels, and Cymri greatly preponderated. The Britons, either identical or mixed with Prehistoric Finns, may have been the first inhabitants. The Gaels may have come next, and then the Cymri. An Anglian element (from the east) and a Norse (from the north-west†) must, at a later period, have been superimposed on the previous compound population. In many parts of the south-west, and, at intervals, along the south coast, the prevailing type among the working classes is decidedly Gaelic. It may have come from Gaul, and the terms Gael and Gaul may be ethnologically synonymous. But it is certain that it not only prevails in the parts above-named, but in a more exaggerated, or in some places more mitigated form, in the Highlands of Scotland and in the greater part of Ireland. As already mentioned, it exists in South Wales, but North Devon and Dorset may be regarded as its head quarters in South Britain.

Gaelic Physical Characteristics.—*A bulging forwards of the lower part of the face*, most extreme in the upper jaw; chin more or less retreating (in Ireland the chin is often absent); forehead retreating; large mouth and thick lips; *great distance between the nose and mouth*; nose short, frequently concave, and turned up, with yawning nostrils;‡ cheek-bones more or less prominent; eyes generally sunk, and eyebrows projecting; *skull narrow and very much elongated backwards*; *ears standing off to a very striking extent*; very acute in hearing; slender or rather slender

* In Lancashire, and probably farther to the north, many words are of Welsh derivation. Besides Cymrian, the people of Lancashire would appear to be to a great extent Anglian (?) and Scandinavian.

† Worsaae's *Danes and Norwegians in England*, etc.

‡ In a large school at Tiverton, Devonshire, at least nine-tenths of the boys presented the most exaggerated Gaelic physiognomy, with gaping nostrils. It is a remarkable fact, that not one out of a thousand of the inhabitants of the North of England (apart from the Irish in towns) presents any approximation to the Gaelic type. The North of England nose is almost invariably thin, high, and sharp, with small nostrils. Archbishop Whateley, in his *Notes on Noses* (Bentley), is quite right in regarding this as an anti-cogitative nose, for the North is more characterised by activity than contemplation, and the people generally show a great indisposition to settle down to quiet meditation. The archbishop, in the above work, tells us, on the authority of the *Edinburgh Review*, that "there are certain districts in Leitrim, Sligo, and Mayo (as pointed out by an intelligent writer in the *Dublin University Magazine*), chiefly inhabited by descendants of the native Irish, driven by the British from Armagh and the south of Down about two centuries ago. . . . These people are especially remarkable for open projecting mouths, with prominent teeth (i. e. prognathous-jawed—the negro type), their advancing cheek-bones, and depressed noses, etc."

and elegantly formed body ; stature short or middle-sized, though in some districts tall ; hair brown or dark brown, and generally straight. There would appear to be two sub-varieties of this type, the one above described, and another with fair complexion, and red or light brown hair.

Gaelic Mental Characteristics.—*Quick in perception*, but deficient in depth of reasoning power ; headstrong and excitable ; tendency to oppose ; *strong in love and hate* ; at one time lively, soon after sad ; vivid in imagination ; extremely social, with a *propensity for crowding together* ; forward and self-confident ; deficient in application to deep study, but possessed of *great concentration in monotonous or purely mechanical occupations*, such as hop-picking, reaping, weaving, etc. ; want of prudence and foresight ; *antipathy to seafaring pursuits*, in which respect they contrast very strongly with Norsemen and Frisians ; veneration for authority.

In Exeter and the neighbourhood, the Gaelic type (with both fair and dark complexions) is very prevalent ; and with the exception of a type approximating to the Saxon, the population may be said to consist of Gaels, and a well-marked race with very dark hair, high forehead, Roman nose, thin lips, and prominent chins.*

In several parts of England to the south of the Thames, a type may be found predominating to which I shall apply the term Saxon. Its characteristics accord with local traditions concerning the ancient Saxon, and it is similar to a type still prevailing in many parts of Germany, to which no name but Saxon can well be applied. The localities in England where it most intrudes itself on the traveller's attention are very nearly those where Saxons landed according to history, or to which Saxons may conveniently have migrated. These localities may be stated as follows :—the Isle of Selsea and the neighbourhood of Chichester,† the district extending between East Grinstead and Hastings, chiefly in Sussex, but including the neighbouring part of Kent, the valley of the Hampshire Avon as far as Salisbury and the neighbourhood, the West of Berkshire,‡ especially the White Horse

* This race is likewise to be found in Cornwall. But the Cornish chiefly consist, first, of Gaels with dark or brown hair ; second, a race with a rather short angular face, somewhat like the second Welsh type ; third, a race more or less hatchet-faced ; and fourth, a race with a very Spanish-looking physiognomy.

† At the national school of Bersted, near Bognor, I observed that nearly all the girls presented the most decided Saxon physiognomy. In many parts of England there are large schools in which not a single Saxon face can be found.

‡ The Saxon hock-tide sports are still kept up in Hungerford and the neighbourhood.

BY
D. MACKINTOSH, F.G.S.

A map of Great Britain and Ireland showing various Celtic and Germanic language regions. Labels include: Norse-Cymrian, Cymrian-Anglian-Danish, Scandinavian-Cymrian-Anglian, Gwynedd-Cymrian-British, British-Gaelic-Cymrian, Flemish, British-Gaelic-Saxon, Saxon-Gaelic, Saxon, Jutian, Danish, Anolian, British-Anglian-Frisian?, Saxon-Frisian?, Belgic?.



Valley and vicinity. But Saxons may likewise be found in considerable numbers, though not always predominating, in the interior of the Isle of Thanet, the south of Dorsetshire, the east of Devonshire, the greater part of Somersetshire, and likewise in the East Midland Counties.

Saxon Physical Characteristics.—*Features excessively regular ; face round, broad, and short or rather short ; mouth well formed, and neither raised nor sunk ; chin neither prominent nor retreating ; nose straight, and neither long nor short ; under part of the face a short ellipse ; low cheek bones ; eyes rather prominent, blue or bluish-grey, and very well defined ; eyebrows semicircular, horizontally, and not obliquely placed ; forehead semicircular, and skull of a shape midway between a parallelogram and a round, flat above the ears, and small in the occipital region ; flattened ears ; hair light brown ; chest and shoulders of moderate breadth ; tendency to rotundity and obesity,* especially in the epigastric region ; short and round limbs, hands and fingers, general smoothness and roundness ; total absence of all angles and sudden projections or depressions. See fig.* 19 (a Chichester Saxon), figures 20, 21.*

Saxon Mental Characteristics.—Extreme moderation ; absence of extraordinary talents, and equal absence of extraordinary defects, mind equally balanced ; character consistent, simple, truthful, straightforward and honest ; persevering in pursuits admitting of variety, but unadapted to purely mechanical or monotonous occupations ; predilection for agriculture ; determined, but not self-willed ; self-reliant yet humble ; peaceable, orderly, unexcitable, unambitious, and free from extravagance ; not brilliant in imagination, but sound in judgment ; great general benevolence accompanying little particular attachment ; tendency to forget ancestors, to care little about relatives, and to have limited intercourse with neighbours.

The term *Anglo-Saxon* has little or no meaning in the present state of English anthropology, unless it be strictly limited to a combination of the Saxon and Anglian types. But some of the mental peculiarities commonly assigned to the supposed Anglo-Saxon, are quite as applicable to the Dane as to the Saxon ; and in all political orations in which the word *indomitable* is used it ought to be coupled with *Dano-Saxon* instead of *Anglo-Saxon*.

Is there an Anglian Type in England ?—Some suppose that the Anglian colonists of East Anglia, Mercia, Deira, and Bernicia,† were

* Numbers of very rotundiform and massive Saxons may be seen in the markets of most of the towns of Sussex, West Berkshire, etc. In Northampton market, a very Saxon-looking race, but taller and darker in complexion than the strictly typical Saxon, may be seen predominating.

† According to the best historians, in 527 and afterwards, Angles arrived

mere handfuls in comparison with other settlers from the Continent. Bede, on the contrary, asserts that the Anglian province in Jutland was laid waste by the extent of the emigration. I have not been able to trace a very well defined type to which the term Anglian can be exclusively applied, but a race not very dissimilar to Saxon, though in some points peculiar, and which looks like a lateral variation of the Saxon type in the direction of both Dane and Norwegian, may be found in great numbers, especially among the women in the following districts:—Suffolk, and parts of Norfolk, Cambridgeshire, Hertfordshire, Bedfordshire, Northamptonshire, Buckinghamshire, parts of Oxfordshire, Warwickshire, South Staffordshire, Shropshire, the east of Derbyshire, the west of Leicestershire and Nottinghamshire, and a zone running north through the West Riding of Yorkshire into Durham.

Anglian (?) Characteristics.—The characteristics which may be provisionally termed Anglian are the same as Saxon, with the following exceptions:—face rather longer and narrower than the Saxon; cheek-bones slightly projecting; chin varying from rather prominent to rather retreating, and more or less approaching angularity; nose narrower and more elegantly chiselled than the Saxon, and the nostrils more compressed; frame much more slender than the Saxon, with narrow shoulders, long neck, and erect figure; hair of a more golden or yellowish hue than the Saxon; complexion exceedingly fair, with more or less of a pinkish hue; in mental character more active, determined, and ambitious, than the Saxon; deficient in the more disinterested tendencies of human nature, and dull in those faculties which elevate man above the necessary affairs of life, but pre-eminently adapted to make the most of the world. Figures 17, 18, 22, are from Anglian districts.

Frisians (?) and Jutes.—In the east-midland, eastern, and south-eastern counties of England, we frequently meet with a physiognomy

in Norfolk and Suffolk (East Anglia). In 547 a more numerous body arrived, under Ida, in the district between the Tyne and the Forth (Bernicia), and afterwards spread farther to the south. In 560, Angles arrived under Ella, and settled in the country between the Tyne and the Humber (Deira). In 585, Angles under Crida arrived in the midland districts of England (Mercia). It is stated in one or more Directories of Shropshire and Staffordshire (I cannot ascertain on what authority), that the English settlers were divided into families or tribes, with the following names:—The Harling, Horning, Hanning, Willing, Elling, Whitting, Totting, Patting, Holling, Essing, Hunting, Copping, Eding, Rolling, Darling, Wiggling, Bucking, Winning, Stalling, Tibbing, Packing, etc. How far this may be correct, I am not prepared to say; but it is certain that numerous names of places, apparently referable to the above or similar tribes, may be found in the midland counties, particularly in Shropshire. I think it probable that *ton* (as in Whittington) is more especially, though not exclusively, an *Anglic* termination.

which is neither Saxon nor Danish, and which is similar to a prevailing type in many parts of Friesland. The face is narrow, and the features prominent, but the profile is not so convex as in the type next to be described. The complexion is fair, and the hair light brown. The skull is narrow, high at the spot called firmness by phrenologists, and low in veneration. (See fig. 24.) The mental character is chiefly remarkable for extreme self-complacency, and independence of authority. In Kent, this type graduates into a much more strikingly-marked type, to which I shall provisionally apply the term JUTIAN, as it is found in Kent and the eastern part of the Isle of Wight—localities which, according to Bede, were colonised by Jutes. On walking from Ryde to Brading, in the Isle of Wight, one evening, I met numbers of men returning from work, and in almost every instance they presented the under-mentioned peculiarities. I found the same type predominating in the neighbourhood of Brading, and likewise in West Kent, especially about Tunbridge.*

Jutian Characteristics.—*Very convex profile*, so that if one leg of a pair of compasses were to be fixed in the ear, the other would describe not only the contour of the face, but of the skull (see Fig. 25); cheek bones slightly projecting; nose sinuous, and rather long; dull complexion, and brown hair; grey or bluish-grey eyes; narrow head, and face more or less narrow; long neck, narrow shoulders and chest; frame broadest at the trochanters; springing gait; often tall, especially in the Isle of Wight; extremely adapted to the practical affairs of life; tendency (still greater than in the Saxon) to manifest indifference to ancestors, relatives, and neighbours.

In North Kent, the Jutian graduates into the Danish type. Concerning the latter, I have no remaining doubt, as it decidedly preponderates in those parts of England where Danes must have settled in the greatest numbers. It is to be met with more or less in all the midland counties; in Lancashire, Westmoreland, Cumberland, Northumberland, and Durham; but chiefly in the North and East Ridings of Yorkshire, Norfolk, Suffolk, and, above all, in Lincolnshire.† In

* Mr. Roach Smith has found that the sepulchral remains of Kent and the Isle of Wight are similar, and that they are different from Saxon strictly so-called. In Kent, I have heard of old songs and traditions which imply that the inhabitants did not formerly regard themselves as Saxons.

† The termination *by*, in names of places, has been pointed out by Dr. Latham and others as exclusively Danish. It is well known that an immense number of names in Lincolnshire have this termination; but many, perhaps, are not aware that in the north-east of Leicestershire it is quite as common. The following is a list of names terminating in *by* in Melton Mowbray union:—Ab-Kettleby, Asfordby, Ashby-Folville, Barsby, Brentingby, Wyfordby, Brooksby, Dalby, Freeby, Frisby, Gaddesby, Gradby,

the latter county, I have been at some pains to collect the characteristics of the inhabitants, and before proceeding to a detailed statement, I must remark that a frequently-observed variation from the predominating profile consists of a sunk mouth and prominent chin (instead of a rather prominent mouth and rather retreating chin). I have often thought that this variation in certain parts of the physiognomy in the same race (the other physical peculiarities being the same) may be part of a law calculated to secure sufficient individual differences in families, without the typical limits being transgressed.

Danish Physical Characteristics.—*Long face* and rather coarse features; *high cheek bones, with a sudden sinking in above on each side of the forehead; high and long nose;* rather prominent mouth, and rather receding chin (see preceding section); skull narrow, elongated, and increasing in width backwards; large occipital region; high in what phrenologists call *self-esteem, firmness, and veneration;* long neck, and low, rather narrow shoulders; stature various, but in general tall; *swinging gait;* hair either yellowish flaxen, yellow, *red, auburn, chestnut, or brown with a reddish tinge;* whiskers generally red; grey or bluish-grey eyes; *ruddy complexion.* (See figs. 27, 28.) Fig. 26 is a mitigated form of Danish face common in all Danish districts.

Danish Mental Characteristics.—*Sanguine, active and energetic,* with a tendency to be always doing something, which often leads into scrapes; determined, courageous, and *ambitious; proud, vain, and ostentatiously benevolent;* high sense of honour; warm in love or hate; obliging and hospitable; tendency to extravagance in eating and *drinking; very social and convivial;* talent for practical science, but deficient in depth of thought, or adaptation to philosophical studies; *good speakers but bad listeners;* tendency to apply inventions to pecuniary advancement; capacity for pushing *on external or material civilisation.* A well educated Dane is an ornament to society. An ignorant Dane stands very low in the anthropological scale.

Norse Districts of England.—Names of places and persons, dialects and history, would lead us to expect a Norse element in the population of Cumberland, Westmoreland, parts of Lancashire, and the northern parts of the West Riding of Yorkshire. Indications of the same element are not perhaps wanting in other parts of England.* I

Harby, Hoby, Kirby-Bellers, Rotherby, Saltby, Saxby, Saxelby, Somerby, Stonesby, Sysonby, Wartnaby, Welby.

* The Staffordshire *clog*, several specimens of which have been found (see *The Reliquary*, by Llewellyn Jewitt, Esq., F.S.A., Derby), consists of a piece of wood, with marks on the edge^s, and Runic symbols. It is generally attributed to Northwegians.

have searched, especially in Cumberland, for a type or types to which the term Norse may be applied. But in addition to Cymrians and Danes, I have not met with any extensively prevailing type except the following. Face rather flat, chin angular and rather prominent, mouth well formed and frequently depressed. Nose high, but not so long as in the Dane; cheek bones often a little projecting, eyes grey, forehead square, and head a short parallelogram;* neck rather short, and shoulders rather broad; *stature generally tall*; complexion among the men ruddy, and hair either brown or sandy; *whiskers generally sandy*; complexion among the women fair, with a lily or *pinkish* hue; good mental abilities, and, with sufficient inducement to cultivation, capable of attaining a high intellectual rank, but very deficient in precocity; practical, orderly, and cleanly; *obliging* to an unparalleled extent, though not free from suspicion; *honest* to an extreme perhaps unknown among any other race in England. The proof of this honesty may be found in doors not being locked during night—in the absence of imposition at inns and lodging-houses—in disdaining to take advantage of strangers—in making no charge for small services—and in refusing any return for favours bestowed. The latter peculiarities may likewise be regarded as resulting from that sense of honour and independence of mind by which the Norsemen in all ages have been characterised.†

In the foregoing survey of the comparative anthropology of England and Wales, I have left anatomical details out of consideration, because I have found it necessary to confine attention to a particular line of observation in order to retain sufficiently distinct impressions, and because I have no doubt Dr. Barnard Davis, who has taken up the anatomical department, will soon be able to connect it with the evidence furnished by physiognomy and mental characteristics. The colour of skin, hair, and eyes, is likewise a subject on which I have touched very briefly, as that may be more profitably left in the hands of Dr. Beddoe. As we may learn from the history of geology, it will not be until after the results of distinct lines of investigation have been grouped and generalised, that we can succeed in establishing fundamental principles on which the superstructure of comparative anthropology can be safely erected.

* I have refrained from giving any decidedly illustrative portrait of the Norse type, as I have not been able to meet with any furnishing a satisfactory average representation. Fig. 23 is not uncommon in the Scandinavian districts of the north of England.

† Worsaae is correct in his assertion, that the inhabitants of Cumberland are extremely addicted to litigation.

THE ROMAN AND THE TEUTON.*

HISTORY has ceased to be a chronicle. It is no longer even a series of elegant biographies or eloquent dissertations. It is beginning to be a science. We want proof as to its premises, and demand logic in its deductions. The mere scholar is no longer adequate to its composition. It not only demands attainments of which he is devoid, but also habits of thought with which he is scarcely familiar. To write history well requires a faith in first principles; in truth, the subjection of the mind itself to the law of order. Now it is here that the scholar fails. He is accustomed to deal with the concrete rather than the abstract, with the individual rather than the universal. To him at best, history is but the rise and fall of nations, not the movement of races. He cannot eliminate the accidental, by regarding it as a perfectly normal phenomenon, subject even to the cyclical law of repetition. He is the slave of appearances. He numbers the waves while neglecting the tides. He does not know that there is "a law of storms" in the moral as in the physical world. He cannot be made to understand that the occultations and eclipses of the one are as periodical as those of the other. He sees the leaves falling and the fruit ripening at their due season, but he does not seem to comprehend that the mystic tree Ygdrasil, also sheds its leaves and casts its fruit, even though they be the very stars of heaven, when the eons have told out their period of duration.

We have been led into these remarks by the introduction which Mr. Kingsley has prefixed to his lectures, and which we think, both for his own sake and for the cause which he represents, had better have been omitted. It is simply an illustrious instance of clerical logic, a magnificent pile of well-meant arguments, based on the untenable foundation of purely gratuitous assumptions. Had it come from Oxford we should not have been surprised, for it is in perfect keeping with her (late) mediæval proclivities, but we were certainly not quite prepared for the announcement of such views by a Professor of Cambridge, the *alma mater* of Bacon and Newton. But we presume Mr. Kingsley's utterances about suspended gravitation, and other matters of similar import, must be regarded as a manifesto of the literate and not the scientific section of this University, and as such may be allowed to pass without further comment.

The subject of Mr. Kingsley's work is certainly most important. The

* *The Roman and the Teuton*. By Charles Kingsley, M.A. Cambridge and London: Macmillan and Co. 1864.

Teuton and the Roman almost divide European history between them. For the annals of Greece are but a prelude, while the traditions of the Celts are lost in the mist of a prehistoric antiquity. The Latin and the Gothic peoples have held the stage in succession for two thousand years, and to a large extent modern civilisation is what they have made it. Politically we are Romans, socially we are Teutons. In the South of Europe Italic influences still preponderate both in creed and custom, while in the North and West the Gothic element has successfully reasserted its olden independence. In a sense modern history is but a narration of this racial interaction, and it was quite right therefore that the Professor of this department should favour us with his matured conclusions on the subject.

To understand the rise of Roman power we must not contemplate it as an isolated phenomenon. It was simply a tidewave in the north-western march of empire, from the plain of Shinar to the shores of Britain. Its more especial function was the summation of ancient preparatory to the birth of modern civilisation. History undervalues the mission of the classic race. The empire of Alexander is the area of Islam, the realm of the Cæsars is the domain of Christianity. Such facts speak volumes. They show that humanity has never rolled back to the antique standpoint, despite what Turk and Teuton could accomplish in the way of re-establishing that barbarism, which is proper to a predominantly muscular type, more especially at their uncultured stage of development.

Contemplating Christianity through the supernatural medium, we have exaggerated its historical importance. We have regarded it as an entirely exceptional phenomenon in human affairs, as an advent for which there was no preparation, and a movement to which there could be no conclusion. We have presumed upon its being miraculous, and have consequently not held it as amenable to the doctrine of forces. To speak of it as in any measure a result of Roman civilisation would, till very recently, have been held as absolutely impious, and even now the public are by no means prepared to hear that it was a purely historical development. The sequence and generation of creeds seem to be but imperfectly understood, yet it is obvious that a law underlies this process, as regular in its operation as any other in the whole domain of nature.

It will be readily understood that the foregoing views are not precisely in accordance with those of Professor Kingsley. He does not believe in the *supremacy* of law, though he admits its *existence*, or rather he does believe in the supremacy of an *undiscoverable* law—for the production of men of genius—who, naughty creatures, fatally disturb all possible calculation, as to the probable order of events. That the man

of genius, whether a Gautama or a Mohammed, a Luther or a Shakespeare, a Cromwell or a Napoleon, is a befitting response to the wants of humanity, that he accurately answers to its necessities, and adequately fulfils its demands, is apparently not enough for him. He is still haunted with the idea of something *accidental* in his production, and although he does not say, in so many words, that he is abnormal, but rather the very reverse, yet he does so in effect, by declaring that all ordinary men, the rank and file are so! Now all this is, to say the least of it, very foolish. It is utterly unphilosophic. A Bacon in his study and a ploughman between the stilts, are equally normal, each in his own grade. The one is as much an instrument of providence, or shall we say an individual organ of the universal mind, as the other. The one does not do more, and the other does not accomplish less than is required of him. They are perfectly harmonious parts of the great whole of human society, and severally discharge their respective functions, in the time and manner required for its growth and well-being. Mr. Kingsley's harassing doubts on this subject, like those of many of his less enlightened brethren of the cloth, appear to us to arise from a want of *living* faith, that is, faith in the now. They cannot, it would seem, realise the sublime truth, that all action is a miracle and all thought an inspiration, and that as a result of this, divine order and celestial beauty, are ever in the process of evolution, at all times and in all places, in the storm and the calm, through the volcano and the earthquake, under the darkness of the eclipse and in the noontide splendour of the sun's meridian power. To attain to this, however, we must believe not only in a *past* but a *present* revelation, not only in a deity that *was* but in a God that is.

If we wanted a striking instance of the disturbing effect of a belief in the miraculous even on a very superior mind, we do not know that we could select one more to the point than that which is furnished by this very work of Mr. Kingsley. There is a looseness of thinking in it, absolutely astounding. Witness the following in his first lecture on "The Forest Children". He is speaking of the conquest of the Roman Empire. "But the Teutons might have done it a hundred years before that, when Rome was in a death agony, and Vitellus and Vespasian were struggling for the purple, and Civilis and the fair Velleda, like Barak and Deborah of old, raised the Teuton tribes. They might have done it before that again, when Hermann slew Varus and his legions in the Teutoburger Wald; or before that again, when the Kempers and Teutons burst over the Alps to madden themselves with the fatal wines of the rich South." Now if there be any one fact in ancient history more patent than another, it is that Rome had a cycle of growth, splendour, and decay, and to suppose that she could have been over-

whelmed, as by an unlucky accident, in the earlier stages of this process, is equivalent to saying that winter might come at midsummer, or the moon suddenly wane from her full-orbed splendour. Mr. Kingsley is surely not ignorant of the great fact, that the Teutonic invasion was not an isolated incident, but part of a mundane movement, which embraced both Europe and Asia, and set not only the Goth, but also the Hun, the Tartar and the Mongol in motion, and so changed the masters of the world from India to Britain. "The human deluge," as he very properly terms it, was a tidal movement of humanity, having its appointed times and seasons, and so not to be hurried or retarded by any accident. The process was essentially ethnic, and consisted in the baptism of the effete nervous races by their muscular correlates. It was what had been done before, and will some day have to be done again, for the tides of the moral like those of the material ocean, repeat themselves periodically.

Now there is no one who knows all this better than the professor of modern history. Of Mr. Kingsley's attainments we have the very highest opinion, and of his talent none can doubt. Yet his unfortunate habits of thought go far to render nugatory, not only his learning but even his commanding ability. He belongs to the school of detail. He paints individualities with pre-Raphaelite minuteness and fidelity, but he has a paralysing distrust of law and principle. His mind is essentially feminine. It is great in the small. It has exquisite finish, but it is sadly wanting both in depth and breadth. He cannot grasp the totality of a great historical event. He is lost in the parts, and we may add, confused amidst effects, which he often mistakes for causes. He is, moreover, too prone to moralise; a venial fault, however, in a reverend professor addressing a class of promising young undergraduates. He is the very antipodes of Buckle, that magnificent pedant of statistics, that amiable fanatic of averages. In *The History of Civilisation* men are pawns on the chess-board of fate. In the Teuton and Roman they are clay in the hands of the clerical potter. Mr. Buckle believed in the omnipotence of circumstances. Mr. Kingsley has unbounded faith in the efficiency of morals. Each doubtless has a side of truth, but neither has the whole truth, which does not however lie between but above them.

The rise and fall of empires are not only phenomena developed in perfect obedience to law, but their minuter accessories are also subject to cyclical repetition. The stern virtues of the conscript fathers in the early days of the republic, and the abandoned profligacy of the senatorial families under the later emperors, are not matters for astonishment; such transcendent virtues and such unutterable vices were the normal product of a powerfully organised and decisive race, pass-

ing over the tremendous arc of ascension into and declension from the imperial supremacy of a world. The Babylonians, taking into account the diversity of race and area, had doubtless passed through much the same cycle of fortune and morals in a previous era. Indeed, the destruction of the great Assyrian monarchy by the Persians and Kurds under Darius and Cyrus, had its later parallel in the conquest of the Roman empire by the comparatively pure and simple and vigorous Goths, under Alaric, Odoacer, and Theodoric.

We have yet to learn the effect of high civilisation upon structure and function. It is obvious that it has a marked and hereditarily transmissible effect upon the nervous system, and through it doubtless upon the osseous and the muscular. It increases the susceptibility to pleasure and pain, and apparently eventuates in a morbid development of the passions. While a refining, it is obviously an exhausting process. It is doubtful if humanity be capable of enduring it in perpetuity. It never has done so hitherto. India and Egypt, Assyria and Persia, Greece and Italy, are eloquent as examples in the past. It would be unwise to vaticinate, so we will only say that the fortunes of modern Europe are in the keeping of futurity.

The fall of Rome certainly presents a great problem, more especially for clerical moralists like our author. Its people no doubt became exceedingly corrupt under the old heathenism, not however till that heathenism was itself effete. When thus corrupt, however, it is obvious that Christianity utterly failed to regenerate them. That could only be accomplished by the natural and normal process of an ethnic baptism. It was not Christianity, but the Goths that restored Southern Europe to virility after the exhaustion of an era of imperial civilisation. Thus showing how irresistible are the natural laws, which fulfil themselves under all circumstances, and in despite of, apparently, the most unfavourable and exceptional conditions. The truth is, Christianity itself was a part of the invasion, Olympus, like the Palatine, going down before the resistless deluge. The Cæsar and the Jove grew old together. The classic man was expiring, not merely in his government but also in his faith. It was the night of death preparatory to the morning of resurrection.

History has not yet done justice to the Teuton. It is only in the process of doing so. It has contemplated him too much through Roman and monkish spectacles. It has scarcely appreciated his manhood. It has decidedly underestimated his civilisation. We have talked of his forests, till we have forgotten his corn-fields, and spoken of his feats as a hunter, till we have overlooked his labours as a herdsman. We have believed that well-equipped and disciplined armies, with all their weapons, clothing, and commissariat, could come

out of the wilderness, or what is yet more incredible, that naked barbarism could defeat the legions and storm the cities of a well-organised civilisation. It is something like the story of "the painted Britons" and their war-chariots, an incredibility which only scholars could believe and pedants could reiterate. When shall we again have history written by statesmen and soldiers, men who know *things*, and are not to be deceived by mere *words*?

Let us endeavour to understand the ethnic position of the Teuton. He is the muscular and material man of Europe, holding the same relation to it which the Tartar does to Asia. He is pre-eminently the *strong* man of the world, the Teuton, Toiton, *Titan* of the West. He does battle even with the Olympian Gods, and as we have seen, sometimes overwhelms them with mountains of human force. He is nature's resource, when her nervous races, Celtic and Classic, have become effete, that is wiredrawn and overbred, "used up". Then she resorts to him for a fresh supply of strength and stature, bone and muscle. A rather terrible process for the wiredrawn, but very necessary for the world, whose mightier works cannot be accomplished by "Aztec" types, even of the most aristocratic descent.

But the Teuton is not all bone and muscle. He has also a goodly brain, well arched, and of the largest volume. He far transcends the Classic man, both in elevation of principle and in warmth of affection. He regenerated the South morally as well as physically. He is by organisation a Pantheist. He is a child of nature, and cannot help confounding her with God. The sublime monotheism of the Semites is beyond him. He cannot discriminate between creation and the Creator. These are his limitations. He is analytical not synthetical in his mental constitution. Hence he can pull down but he cannot build up. He is the world's master in ages of negation. He can reform, but he cannot found. He is not an architect. He conquered political Rome as a soldier. He is in the process of subduing ecclesiastical Rome as a theologian. But when the rubbish has been removed, he will not be called upon to build the new temple. That is a feat reserved for men of a finer race, for the thoroughly baptised Celt of Western Europe, now in the brilliant dawn of his re-emergence, and about to enter on the magnificent epicycle of his prehistoric civilisation.

And here we are landed in another problem. Is the Celtic or the Classic race inherently and essentially the highest? Of course, the scholar will have no hesitancy in deciding for the latter. All history is in their favour. But here arises the yet deeper question, "what is history," to what extent can we trust it in the solution of a mundane problem? To help us in this difficulty, let us see what is the area of time and space which it covers. It goes back some three thousand

years with moderate distinctness, and then surrenders us to the rather uncertain guidance of archæology and tradition. It embraces the Mediterranean seaboard of Europe, Africa, and Asia, and the oceanic seaboard of the latter, to China and Japan. This is its domain. It can tell us absolutely nothing of Celt, or Teuton, or Sclavon, till comparatively modern times, say, during the last two thousand years. It knows nothing of the Arab but as a Saracen, or of the Moor, till he emerged as a Carthaginian. It ignores India till the period of the Aryan immigration, and even then surrenders it largely to tradition, till the age of the Macedonian conquests. It takes the antiquity of China upon trust, and simply presumes that the Tartar and the Mongol have always been nomads upon the eastern steppes. Now to what does all this amount? Simply a rather confused and fragmentary narrative of one mundane tidewave of empire and civilisation, its western sweep from India to Britain; not beginning indeed with the former, and not yet able to end with the latter. It tells us only of the occidental march of conquest and colonisation, and the analytical tendencies of thought and belief which accompanied it. It shows us how Babylon reappeared in Rome, and how Rome is undergoing a resurrection in London. It tells us that the theosophy of the East has become the philosophy of the West; and that the magnificently inflectional and sonorous languages of the earlier Aryan tribes, beginning with Sanscrit and ending with Latin, have been disintegrated into those infantile particles, which constitute the baby tongues of Southern Asia and Western Europe. It is simply, then, the narrative of one grand oscillation of humanity, one stupendous swing of the pendulum of fate.

But we want something more than this. We want some account of the previous oscillation. We want to know something about the rise of cromlech culture in Gaul and Britain, and of cyclopean civilisation in Greece and Italy. And we want to know what took the Aryan tribes to Persia, and carried them as resistless victors, through the passes of the Himalayan mountains into the plains of India. This is surely not an unreasonable demand. We have seen the great inflectional languages broken down, so we want to know something of the processes by which they were built up. Philology may reveal this to us, but history cannot.

But to return to the more especial subject matter of the present article, what were the ethnic results of the great Teutonic invasion? And we reply, they were purely baptismal; that is, they produced no permanent displacement of races. Spain is still Iberian. Italy is predominantly Classic; while modern France, like ancient Gaul, is almost purely Celtic. All this will doubtless be readily admitted, but

not so the corollary from these instances, or rather from the law of non-displacement to which they point, namely, that Britain is therefore still essentially Celtic. Saxon prejudice and Norman pride alike revolt at such an insinuation. But again we say, what if it be the truth. If Greek and Persian be still in existence, despite the Turkoman, why should not the Celt remain, notwithstanding his baptismal regeneration?

And here it may be asked, what is the ethnic stage at which Europe has now arrived, more especially in reference to that Teutono-Roman movement, with some features of which Mr. Kingsley's work renders us so delightfully familiar. And we reply, the stage of re-emergence from the Gothic conquests. The old nationalities are reappearing. The specialities of the past are undergoing a resurrection, let us hope in glorified bodies. The Lombard has been absorbed in the Italian, the Visigoth in the Spaniard, the Frank in the Gaul, and shall we add, Angle and Saxon, Dane and Norman, in the BRITON. Yes; perhaps that will do. The *name* is not quite so objectionable!

We have said that the Gothic conquest of the Roman Empire was not an isolated phenomenon, but part of a mundane movement, consisting in the aggressive action of the muscular on the nervous races, during the ethnic collapse of the latter. So neither is the re-emergence local or national. It is not confined to one people, or even to one continent. It extends through Europe into Asia. It is seen in the reappearance of "the Latin nations" on the foreground of history, constituting a part of that process of resurrection, which is obviously going on around the whole Mediterranean seaboard. It has raised not only the Italian, but even the Greek, to an initiative nationality. The Persian is reviving; while, perhaps, even the Indian mutiny was but the first spasm of returning vitality in the farther East. It is not merely the Teuton that is reabsorbed into the Celt and the Roman, but also the Tartar, that is disappearing in the Syrian, the Persian, and the Hindoo. And in conjunction with this, it is interesting to observe that the Slavon and the Mongol, the preeminently representative material types of the two continents, are losing place and prestige in the estimation of mankind. Russia has received her first severe check at Sebastopol, and it will be observed at the hands of the two *western* powers. China is falling to pieces by its own weight and from irremediable corruption, while amidst its pitiable confusion, the same two powers managed to march in triumph to its capital, and dictate terms of peace amidst the smoking ruins of the summer palace of its celestial emperor. The sun is rising in the West. The mystic utterance of the Prophet of Islam is undergoing fulfilment. The nervous races of the occident are dominating the material types of the

orient, and another great cycle of destiny is in the process of inauguration.

It need scarcely be said that it is not such views as the foregoing, that the reader will find illustrated in the work of Professor Kingsley. They would perhaps scarcely be suitable either to a reverend author or to an university professor. History, properly so called, can scarcely be written, and it certainly dare not be taught *ex cathedra*. The extent to which its true roots transcend even the faintest echoes of tradition, antedating, not only the most ancient empires, but the oldest monuments, is only beginning to be grudgingly admitted by orthodox scholars, accustomed to limit their views by classical data and Hebrew authority. The range of time imperatively demanded for the sweep of the great cycles, not only for the rise and fall of empires, but for the growth and decay of languages, and above all the succession and interaction of races, is such as only a scientifically trained mind can adequately or even approximately conceive. While the degree in which each movement is truly mundane in its causes and consequences, ever but the part of a larger whole, a link in that mystic chain, descending in unbroken concatenation out of the past and stretching on in prophetic anticipation to the future, is only dawning in its full significance, even on the most advanced thinkers. In saying this, do not let it be supposed that we, even by implication, blame Professor Kingsley because his work is essentially fragmentary, because it takes up Rome at her decline and lays down modern Europe at her dawn. This was in accordance with his plan, and he was, therefore, quite right to thus pursue it. But there is no reason why we should be equally limited in the treatment of a topic so eminently suggestive of broader and more expansive views, of a wider, and we may add, sublimer and more hopeful outlook.

There is one great historical fact more immediately connected with the subject matter of Mr. Kingsley's work, on which both professionally as a clergyman, and by special position as an authorised teacher in an orthodox university, he was particularly limited; we allude to the introduction and diffusion of Christianity. We have already said this was a part of the invasion; it was the moral or spiritual, as the Gothic conquest was the material and martial phase of that great inundation by which Classic civilisation was overwhelmed in the hour of its utter effeteness. Being then part of a movement which in its social and political aspect was certainly mundane, have we not reason to believe that this, its religious province, was mundane also, and as the Gothic immigration of Europe, had its correlated Mongolic invasions in Asia, have we not reason to believe that the rise and diffusion of Christianity in the west must have had its preceding or accompanying parallel in the east? It had, and that parallel was Buddhism, the Christianity of

the farther Orient, as Christianity, contemplated philosophically, is but the Buddhism of the hither Occident. This subject demands profounder treatment than it has yet received. Perhaps we have not even yet sufficient data for an effectual solution of the problem. But we can have no doubt that there is a very near relationship between these two great religions, with their incarnational advents, their similar sacerdotal organisation, and their equally remarkable monastic institutions. To deny that the Pope is the Grand Lama of the West, or to assert that the Grand Lama is not the Pope of the East, is simply to affirm that the sun does not shine at midday. The thing is palpable to all whose eyes are not blinded by prejudice, and what we really want is not its denial but its explanation.

The relationship between Buddhism and Christianity is in truth one of those great and searching questions, for whose honest and thorough discussion the world is but imperfectly prepared. And yet, however long the investigation of this inconvenient subject may be postponed, it is obviously looming in the distance, as one of the grand inevitabilities of the future. Both were reactions against the stringent tyranny of a previous system of law and order as administered by an hereditary priesthood. Each endeavoured to escape from this despotism of a sacerdotal caste, by placing the offices of religion in the hands of celibate monks, taken of necessity from the laity. Both were essentially democratic, and in a measure communistic movements, in opposition to the eminently hierarchical and aristocratic constitution of things which had preceded them. Both are based upon the fundamentally pantheistic idea of the descent of the Divine into the human, the pervasion of the sensible by the spiritual, the suffusion of the terrestrial by the celestial, of which a messianic incarnational advent is the culmination.

But this is not all. To the Anthropologist it is equally interesting to observe that the rise and diffusion of Buddhism under Gautama, preceded and accompanied the great aggressive movement of the Mongolic tribes of the North-east on the more refined and civilised races of the South-west of Asia, just as correspondently, the rise and diffusion of Christianity preceded and accompanied the equally aggressive action of the muscular Teutonic races of the North-east on the more refined and civilised nations of the South-west of Europe. It is here quite obvious that a negative and disintegrative faith, arose in each case as the befitting accompaniment, and we may say exponent of a racial movement, which amidst unutterable disorder, eventuated in placing bone and muscle in temporary preponderance over nerve and thought. Nor does the parallel end here. For as the earlier triumphs of Buddhism were followed after a time by the partial reaction of Brahminism, so were the earlier triumphs of Christianity followed by

the reaction of Mohammedanism, whereby the cradle-ground of India in the one case, and Syria in the other, were recovered for the more ancient faiths. It is scarcely necessary to observe that, contemplated from this altitude, the creed of Islam must be regarded as a return to the severities of Judaic monotheism, from the incarnational heresies of Christianity, Mohammedanism being simply Judaism stripped of its sacrificial ceremonial, and so adapted to the requirements of the world in these latter and post-classic ages.

Now it is obvious that we are dealing here with an immense problem, whose elements cover an area both of time and space but little suspected. The incarnational idea antedates tradition. Brahminism, Buddhism, and Christianity are but its successive embodiments. It pervades not only Classic but Scandinavian mythology. Only, however, in the faintest manner does Mr. Kingsley here and there allude to the very important fact, that some form of Buddhism had obviously preceded Christianity over a large part, if not the whole, of Western Europe. He finds the square bells of Lamaitic Tartary in the West of Ireland, and he discovers that Christ was occasionally accepted as the chief of the Sons of God—in truth, as the last and grandest of the incarnations. But he, perhaps, very properly does not say anything about the worship of Odin, being simply the prehistoric European phase of that great incarnational faith, of which existing Buddhism and Christianity are, as we have observed, the more recent developments. And yet in speaking of the conversion of the Teutonic tribes, such a topic, however inconvenient, is almost unavoidable. Nay without an underlying Buddhistic element, even in the Classic race, it is almost impossible to explain the slow, steady and resistless growth of the new eastern faith, amidst the decaying populations of the old empire. Here again we are reminded of the limitations of what we are pleased to call history. What do we really know of the religious revolutions of the world. Faintly echoed from the far remoteness of an undefined past, we catch the dying glories of the Saturnian age in Europe. But obviously parallel with this was a corresponding movement in Western Asia, eventuating in the dethronement of Moloch. What is the connection between Jove and Jehovah, and what was the essential character of that revolution in religious thought, which brought in their milder worship upon the ruins of that of their sterner predecessor, the cruel old timegod, with his bloody rites and human sacrifices? And why was Saturn spoken of with such reverence in Europe, while the memory of Moloch was held in such detestation in Asia? Truly in all this it is greatly to be feared that we have not yet light enough to see our own darkness. We do not yet know how very superficial is our knowledge, how short is our plumb-line compared with the depth of the sea of time we are attempting to fathom.

Falling back (in utter despair of obtaining anything really satisfactory on this subject from written records) on racial type and organic proclivity, we conclude that, in the first place, the Caucasian race must have originated their own thoughtforms in faith, as in philosophy and government. And secondly, that there has always been and ever will be some well-marked specialities attaching to the creeds respectively, of the Semitic and Aryan divisions of this higher type of humanity. At the present hour this is seen as distinctly in Trinitarian Christianity and Unitarian Mohammedanism, as formerly in the polytheistic arrangements of Olympus, and in the Monotheistic creed of Mount Zion. And we may conclude that in this, as in all other known manifestations of force, there is not only action from the east, but also reaction from the west. In other words, that Asia is not the sole fountain of faith, but that Europe must also, at certain periods, take her share in the great work of religious development. It is, indeed, a serious question, to what extent existent Christianity is virtually an European faith. Judging by the facts of history, it would certainly appear to be most distasteful to the Semites both of Asia and Africa, who have practically extruded it from their borders and put the Monotheistic faith of Islam in its place. But the grander mission of Europe in the religious sphere is doubtless yet to come. She has simply *modified* Christianity, rendering it artistic for the Latin nations, and rationalistic for the Teutons. But in the great day of her re-emergence which is now dawning, in that social resurrection of her South-western types after their Teutonic baptism, which is the dominant ethnic characteristic of our times, will she rest satisfied with this. Is it in short to be supposed that the powerfully organised Aryans of Western Europe, will submit to be held in permanent pupillage, to the ancient thoughtforms of Oriental tribes, long since ethnically effete. We think not. At present Europe is evolving the literature and science of the world. Hereafter she will develop its religion.

From what we have said of Mr. Kingsley's work, it must be obvious that we do not regard it as being exactly of an historical character. He does not so regard it himself. But it consists, nevertheless, of some beautifully written prelections on a most interesting and important phase of European history, and may be studied with advantage, not merely by the general reader, but also by the scientific Anthropologist, seriously desirous of knowing something of the details of that process of racial amalgamation, whereby Teuton and Roman became one people, emerging into the modern Italian, out of the strife and confusion necessarily attendant on the "decline and fall of the Roman Empire."

THE SECRET OF HEGEL.*

Μάντις ἢ ἰητῆρα κακῶι ———

——— οὗτοι γὰρ πλεητοί γε βροτῶν ἐπ' ἀπειρονα γαῖαν.

WE cannot congratulate Mr. Stirling upon the motto which he has chosen for his work : " A prophet, or a healer of ills . . . for such men are welcome throughout the boundless earth." Is Hegel well received in all quarters of the globe? Certainly not, says Mr. Stirling himself, for no one except Mr. Stirling appears to understand him. Is Hegel a healer of ills? It appears to us, on the contrary, that Hegel would be the worst possible physician who could minister to a mind diseased. After him, as after Prometheus, *nova febrim terris incubuit cohors*, and especially brain fever in all its forms. And the penalty which has followed upon the fulfilment of his destiny by Hegel has been greater in proportion to the benefit than that which followed upon the fulfilment of the destiny of Prometheus. Endless blessings followed for all mankind when Prometheus drew down fire from the skies ; but who, except Mr. Stirling, can tell us what benefit was conferred upon us when Hegel raised a fog from the earth? A prophet too—a seer! says Mr. Stirling. Well, perhaps this epithet is the least inappropriate. The prophet makes obscurity a part of his trade, and his followers may interpret him in any way they please. There are commonly as many different interpretations of the meaning of a prophet as there are different interpreters ; and Hegel is no exception to the rule. Mr. Stirling is the last, and therefore, for the time being perhaps, the most infallible interpreter of Hegel ; but oh, for an interpreter of Mr. Stirling!

It may possibly be said that this is a very flippant and unbecoming manner of treating a conscientious attempt to expound so great a thinker as Hegel. But we do not believe that such an objection will be raised by any Englishman who has made a conscientious attempt to understand Hegel and to compare his doctrines with those of an opposite school. It does not become us to be cowed by a name ; it does not become us to accept obscurity as identical with clearness and depth of thought. If Hegel has indeed a meaning, let us try to drag it out from the chaotic diction in which it is buried ; but if we tear away mountain after mountain of verbiage and find nothing when all is done, let us not be afraid to proclaim the fact.

* *The Secret of Hegel: being the Hegelian System in Origin, Principle, Form, and Matter.* By James Hutchinson Stirling. London: Longmans. 1865,

It has often been said that it is as unjust to find fault with the jargon of the German philosophers as it would be to find fault with the technical language or symbols of the mathematicians. But the two cases are no more parallel than are the two halves of one straight line. The mathematicians always tell us what they mean by their terms and their symbols, while Mr. Stirling considers it a merit in Hegel that he leaves us to find out the meaning of all his terms for ourselves.

"Here it is," says Mr. Stirling, "that we have one of the most peculiar and admirable of the excellences of Hegel; his words are such and so that they *must* be understood as he understands them, and difference there can be none. In Hegel thing and word arise together, and must be comprehended together. A true definition, as we know, is that which predicates both the *proximum genus* and the *differentia*: now the peculiarity of the Hegelian terms is just this—that their very birth is nothing but the reflexion of the *differentia* into the *proximum genus*—that at their very birth, then, they arise in a perfect definition. This is why we find no dictionary and so little explanation of terms in Hegel; for the book itself is that dictionary; and *how* each term comes, *that* is the explanation; each comes forward, indeed, as it is wanted and where it is wanted, and just so, in short, that it is no mere term, but the thought itself."

This lucid passage at once rouses the suspicion that there may possibly be many equivocal terms in Hegel's writings, and that they may lead to some fallacious reasonings. Still, we did not expect to find on the very next page of Mr. Stirling's book the following confession:—

"Another difficulty turns on this word, *Vorstellung*, which we have just used. A *Vorstellung* is a sort of sensuous thought; it is a symbol, a metaphor, as it were; an externalisation of thought; or *Vorstellung*, as a whole, is what we commonly mean by conception, imagination, the association of ideas, etc. . . . Then, the process itself, as a whole, is also nameable *Vorstellung* in general."

Still less did we expect to find such a damaging admission as this:—

"Again these terms [*An sich, an ihm selber, an ihm*] will occur in Hegel, not always in their technical senses, but sometimes with various shades, and very much as they occur in other writers. It must be confessed, indeed, that it is these little phrases which constitute the torment of every one who attempts to translate Hegel."

To put the matter more clearly—Mr. Stirling having, in his first volume, lauded Hegel to the skies for the exquisite clearness of his terms, is compelled in the second volume to complain of their ambiguity.

And here we believe is the true secret of Hegel. Mr. Stirling never distinctly tells what the "secret" is; he bids us read Hegel

again and again, and so find out for ourselves. But in our opinion the secret is simply this. Hegel never distinctly realised to himself the meaning of his jargon, and so fell into a series of fallacies through the use of equivocal terms. It was perhaps a misfortune for Hegel that he was born in Germany. Though the German language is probably a reflex of the German mind, it is not impossible that the habit of speaking French or English from his infancy might have placed the writings of Hegel within the class intelligible, might have made him the founder of a school, or might have altogether deterred him from writing metaphysics. The cumbrous German language affords fatal facilities for fallacies; the numerous different shades of meaning of which most German words are susceptible render the use of equivocal terms inevitable even to the most careful and conscientious writers. But when a German goes out of his way, as Hegel does, to found scientific arguments upon far-fetched verbal resemblances, he nips in the bud any faint expectations that he may have raised of philosophical accuracy.

As an example of verbal illustration or argument we quote the following passage from Mr. Stirling's translation of Hegel on Quality:—

"The *Qualirung* or *Inqualirung* (the Agonising or Inagonising, inward pain-ing, pang-ing, throe-ing),—an expression of Jacob Böhme—of a Philosophy that goes into the *Deep*, but a troubled deep,—signifies the movement of a quality (the *sour*, *bitter*, *fiery*, etc.) in its own self, so far as it in its negative nature (in its *Qual*, its pang) expresses and affirms itself through Other—signifies in general the Unrest of the Quality in itself, by which it produces and maintains itself only in conflict."

Any one to whom Hegel may first introduce himself by this sentence will probably be unable to discover anything in it of which he can feel certain except the play upon the two German words *Qual* and *Qualität*. But we do not believe that Hegel could introduce himself in any more intelligible or appropriate way. We find ourselves here plunged *in medias res*. In this one sentence are the principal features of Hegel's philosophy—not exaggerated or distorted, but rather softened and flattered; those features are not here beaten into one formless mass as they sometimes appear after a terrible conflict with the Indeterminate, but rather as the features of a pugilist who has fairly recovered from one defeat and is prepared for another.

Mr. Stirling assures us that the right way to enter upon the study of Hegel is to read that portion of the "Complete Logic" which treats of "Quality" until it becomes intelligible. We, therefore, set to work upon this same "Quality," resolved not indeed to understand it, but either to understand it or to know why it could not be understood. And we believe that we are now able to shew why it is unintelligible.

The sentence with which "Quality" begins is this:—"Being is the

indefinite *immediate*; it is devoid of definiteness as in reference to essence, as also of any which it might possibly have within itself. This reflexion-less Being is Being as it is only in its own self." Let no one be deterred from reading on because it is difficult to understand what Hegel means by Being, because it is impossible to have any idea of that which has no qualities. Hegel explains further on: "the question of *How* belongs itself to the erroneous ways of Reflexion, which demands comprehensibility, but at the same time presupposes its own fixed categories, and consequently feels itself armed in advance against the reply to its own question." We were at first inclined to suspect that Mr. Stirling had made some mistake in the translation; but, to do him justice, in this and in other cases in which we have referred to the original, we have found him as scrupulously accurate as the case would permit. Hegel does distinctly say that we must not demand comprehensibility (*Begreiflichkeit*) that we are not to ask for any clear conception, any image of the matters about which we are to reason.

Remembering this philosophical dogma, we may pass on to what Hegel says about Nothing: "*Nothing, pure Nothing*; it is simple equality with itself, perfect vacancy, determinationlessness and *intentionlessness* [formlessness and matterlessness]." And then we come to the great Principle of Hegel's system, "*Pure Being and pure Nothing is therefore the same.*" Now we must remark that we cannot see how the conclusion follows from the premises. Pure Being and Pure Nothing, as we understand the statement, are identical because both are without qualities or attributes, or as Hegel says determinateness. Let us throw the argument into the form of a syllogism:—

Pure Being is without attributes;

Pure Nothing is without attributes;

Therefore Pure Being and Pure Nothing are identical.

In order to avoid technical terms, let us construct another syllogism on the same principle by way of exposing the fallacy:—

Snow is white,

White hot coals are white,

Therefore snow and white hot coals are identical.

But there is another, and perhaps more plausible way of stating the argument:—

When we think of pure Nothing we cease to think;

When we think of pure Being we cease to think;

Therefore pure Being and pure Nothing are identical.

As a companion to the above syllogism we suggest the following:—

When we inhale chloroform we cease to think;

When we get a hard knock on the head we cease to think;

Therefore chloroform and a hard knock on the head are identical.

And on the same principle it might be shown not only that these two

are identical with one another, but that they are also identical with Pure Being and Pure Nothing.

But Hegel was not really misled by the fallacy in the latter form ; he was saved from that by another fallacy depending upon language and upon the peculiar character either of the German language or of the German mind. It is a marked peculiarity of Germans to emphasise their words far more than either Englishmen or Frenchmen. Accordingly Hegel is constantly reminding us that we must place the accent here, and not there, there and not elsewhere ; and in many of his sentences he informs us that the accent is to be placed on the copula, not on the predicate. "Nothing," he tells us, "is thought, nothing is represented (conceived), it is spoken of ; it *is* therefore. Nothing has in thought, representation, speech, etc., its Being." In this passage we believe that the meaning and the error of Hegel's fundamental doctrine are apparent. We have once before had occasion to point out the same error when made by a far greater man than Hegel. In that case the error was a mere slip so introduced as not to vitiate the whole work. In this case it is the corner stone of a rotten edifice. It is obvious that, if Nothing exists because it is spoken about, centaurs, ghosts, fairies, men with tails, mermaids, sirens, one-eyed giants, and anything that anyone likes to invent, must exist on the same principle. And this theory is apparent throughout the whole of Hegel's argument. He does not say that the perception of pure Being or of pure Nothing is the negation of perception ; he says that each *is* perception though he prefixes the epithets pure and void. When he draws an illustration from light and darkness—representing Being as pure light, Nothing as pure darkness—he does not say that in each case we should be equally unable to see, but that "the one seeing as much as the other seeing *is* pure seeing—seeing of Nothing." We may, perhaps, travel on "the erroneous ways of Reflexion" so far as to suggest that the destruction of the optic nerves would have the same effect as "pure darkness." The destruction of the optic nerves is therefore the surest road to pure seeing. Whether any Hegelian philosopher will adopt this method of obtaining a view of Pure Nothing which is Pure Being, we cannot predict ; but before he tries the experiment we take the liberty of recommending him to consider seriously whether there may not after all be a difference between seeing and not seeing, and whether the "seeing of Nothing" may not be a synonym for the loss of sight. We do not ourselves pretend to know anything about either pure Being or pure Nothing, but we are too obtuse, too un-Hegelian to see that the imposition of an accent upon the word "*is*" can be sufficient to prove the existence of either, still less the identity of one with the other. And although Pure Being and Pure Nothing are in a sense one to us, inas-

much as we know no more of one than of the other, we have not the vanity to suppose that our ignorance is knowledge transcending the powers of other men. We do not suppose an inhabitant of Jupiter to be an inhabitant of Venus because we know nothing about either, nor can we suppose Being (whatever that may be) to be Nothing (whatever that may be) for a similar cause. In short, we decline (for sufficient reasons, as we believe) to accept the fundamental principle of Hegel.

Philosophers have ere now declined to accept that dogma for reasons different from those given above. "Being," they have said, "and Nothing are the same thing; it is, *therefore*, the same thing whether I am or am not, whether this house is or is not, whether three hundred dollars are or are not in my possession." To this Hegel answers fairly enough, "Such inference or such application of the proposition alters its sense completely. The proposition contains the pure abstractions of Being and Nothing; the application, on the other hand, makes of these a determinate Being and determinate Nothing. But, as has been said, the question here is not of determinate Being." A philosopher has, of course, a perfect right to draw such a distinction as this, and to complain if his adversaries ignore it. But, on the other hand, his adversaries, if unable to admit the argument about pure Being, have a right to use their own weapons when the war is carried into their own domain—that of the Determinate. By all means let Hegel be monarch of all he surveys while he remains in the region of pure Being, and pure Nothing; those revolutions have little interest for us in which, according to him, Being and Nothing alternately come uppermost, and yet remain identical; we cannot say that Hegel's revelation is not true; we can only say that Hegel has not shewn it to be true, and that it matters not to us whether it be true or false. But we watch with a jealous eye for the introduction of manners and customs from this unknown, this hypothetical realm into the better known and free land of the Determinate—of the Concrete.

Hegel's disclaimer is a disclaimer only for the time being. In the domain of pure Being and pure Nothing diplomacy seems to be not unknown. When hard pressed, Hegel declares that the identity of Being and Nothing applies only to pure and indeterminate Being and Nothing; when the danger is passed, both Hegel and his disciple, Mr. Stirling, deliberately make the same assertion about the Determinate. "Hegel," Mr. Stirling tells us, "came to see that there exists no concrete which consists not of two antagonistic characters, where, at the same time, strangely, somehow, the one is not only through the other, but actually is this other." A truly startling statement! We might possibly reconcile ourselves to the theory that this side of Nowhere is the same as the other side of Nowhere, because the geographical

position of Nowhere has not been accurately ascertained, and because we have no particular interest in the district. But when we are told that the north side of Fleet-street is the south side, and that each is itself and the other at the same time, the matter becomes more serious. A confident and impatient man might, perhaps, fling the book away at once with a laugh. A more diffident man might, perhaps, walk into Fleet-street and ask impartial passengers for their topographical opinions. And an inquisitive man having thus satisfied himself that his wits had gone no further astray than those of the average Englishman, might set himself to inquire how any man could have arrived at the Hegelian point of view.

And here again we must remark that we do not think Mr. Stirling has misrepresented Hegel. Hegel does state that every concrete is its other, and attempts to establish that position by the most curious argument we ever met with. In order to shew that there can be no mistake about the application of this argument, we quote first the following distinct statement of Hegel's :—

"There-Being* is definite, determinate Being; its determinateness, definiteness, is beënt determinateness, beënt definiteness, Quality—Through its quality is it that Something is,—and as in opposition to Another."

"There-Being" then is this "determinate" Being to which we were told in the passage before quoted the identity with Nothing would not apply. Though Being is the same as its Other, Nothing, and *vice versa*, the principle, we were told, was not to be applied to "There-being" (Daseyn). What then was our astonishment when we read the Chapter on "There-being" and found the following :—

"1. Something and Other are both in the first place, There-beënt or Something. 2. Each is equally an Other. It is indifferent which is first named Something; and just because it is *first* named is it Something. . . .

"At the same time, as has been remarked, even for conception (representation) every There-being is distinguishable as an other There-being, and there remains not any one There-being that were distinguishable only as a There-being, that were not without or on the outside of a There-being, and, therefore, that were not itself an Other. Both are equally determined as Something and as Other, consequently *as the same thing*, and there is so far no distinction of them." The italics, be it remarked, are not ours.

If we take "Both" to mean any one "There-being" and any one "Other", as we suppose we must take them, the argument is this :—

A (any one "There-being") is Something and Other;

B (any one "Other") is Something and Other;

Therefore *A* is the same as *B*.

* "There-Being" is Mr. Stirling's translation of *Daseyn*.

It is hardly necessary to point out that there is a double fallacy in this reasoning. In the first place, if the terms were unequivocal, a precisely similar syllogism would suffice to shew as before that snow is the same as white hot coals. In the second place the term "Other" is monstrously equivocal. *A* may be the north side of Fleet-street and so an Other as opposed to the south, while *B* may be the Sun as opposed to, or the Other of, the rest of the universe. It will then follow from the argument that the north side of Fleet-street and the Sun are one and the same thing.

But let us try to be more charitable to Hegel, and concede that, although he has not taken pains to be verbally accurate, he, of course, did not intend the word Other to be equivocal; that if he intended to speak of *A* as an Other, he also intended to limit the signification of the term Other strictly to *A* and its correlate, which we may call *B*. *A* is the other of *B*, *B* the other of *A*. Be it so; then if *A* and *B* are the same thing, the north and the south sides of Fleet-street are identical.

But, it will be said, Hegel could never have gone so far wrong as this; there must be some other possible interpretation of his meaning. And there is another possible interpretation. Hegel may have meant to say that "Something and Other" is a complete definition of the term "There-being", and also a complete definition of the term "Other", and that the two terms are therefore synonymous. But what a lame and impotent conclusion is this; when we look for an inference we find only a definition just as when we looked for definitions we were sent empty away. We nevertheless believe that Hegel had some such meaning as this, with a most unwarrantable *arrière pensée* attached to it. He wished us to believe that what is true of a word is true of that which is signified by the word—or, to use more forcible if more technical language, that all things which may be denoted by any connotative term are identical. There is nothing, he seems to imply, to which you can apply the predicate "There-being" to which you cannot also apply the predicate "Other"; and, conversely, there is nothing to which you can apply the predicate "Other" to which you cannot also apply the predicate "There-being"; therefore, anything which has the predicate There-being applied to it is identical with anything which has the predicate Other applied to it. Let us, as before, illustrate the absurdity by a similar argument. Let "mortal" and "certain to die" be synonymous terms; then those things of which "mortal" may be predicated are the same as those of which "certain to die" may be predicated; "mortal" may be predicated of men, and "certain to die" of horses; therefore men are identical with horses.

And Hegel apparently did mean to state something more than that

the two terms "there being" and "other" are synonymous. The passage immediately following that which we last quoted, affords evidence that Hegel supposed himself to be dealing with something more than mere words:—

"*This self-sameness* of the determinations, however, falls only into outer Reflexion, into the *comparing* of both; but as the *Other* is at present constituted it is *per se* the Other, in reference, indeed, to the Something, but it is *per se* the Other also *outside of*, apart from the Something. Thirdly, therefore, the Other may be taken as isolated in reference to its own self; *abstractly* as the Other; the τὸ ἑρπὸν of Plato, who supposes it to be the One as one of the moments of Totality, and in this manner ascribes to the *Other* a special nature. But thus the *Other*, taken as such, is not the Other of Something, but the Other in itself, that is, the Other of itself."

Let us not pretend that we understand the above passage; we quote it, partly in order that we may not be accused of suppressing the context of the previous passage, and partly because Hegel seems to be giving some account of things, rather than, or in addition to, a definition of terms. It will be seen, upon reference to the first passage quoted in this review, that in Hegel's philosophy there appears to be a mysterious trinity—the Thing, the Word, and the Thought—in which we are unable to divide the substance, though Hegel apparently confounds the persons. We do not deny the existence of such a trinity; but we must remark that if, in the Hegelian philosophy, there is no difference between thinking a man a fool, calling him a fool, and being a fool oneself, we hope no true Englishmen will become converts.

We believe, then, that Hegel has been, and is likely to be, unintelligible, because he is continually led astray by mere words—because he does not take sufficient pains to distinguish between words and the things that are denoted by them. Hegel, we believe, was not, as Mr. Stirling asserts, a master of language, but language was rather the master of Hegel. And his obscurity is to be attributed not simply to his technical terms; perhaps not more to his terms than to his utter ignorance of the arts of diction. In confirmation of this opinion, we quote a passage from the original German, which Mr. Stirling himself admits is "curiously tangled":—

"Das Umschlagen des Nichts durch seine Bestimmtheit (die vorhin als ein Daseyn im Subjecte, oder in sonst was es sey, erschien) in ein Affirmatives, erscheint dem Bewusstseyn, das in der Verstandes-Abstraktion feststeht, als das Paradoxeste; so einfach die Einsicht ist, oder auch wegen ihrer Einfachheit selbst erscheint die Einsicht, dass die Negation der Negation Positives ist, als etwas Triviales, auf welches der stolze Verstand daher nicht zu achten brauche, obgleich die Sache ihre Richtigkeit habe,—und sie hat nicht nur diese Richtigkeit, sondern um der Allgemeinheit solcher Bestimmungen willen ihre unend-

liche Ausdehnung und allgemeine Anwendung, so dass wohl darauf zu achten wäre."

This sentence, we believe, is truly Hegelian; it is a sentence in which we vainly endeavour to drive the *anacoluthon* to the end, just as in Hegel's train of reasoning we vainly endeavour to drive the *non sequitur* to the end of a paragraph. Whose fault is it, we ask, that the writer of such a sentence as the last quoted is unintelligible—that of the reader or of the writer? Are we to be told that the man who cannot see his way clearly to the end of a sentence, can see his way clearly through a long train of reasoning? Are we to be told that this ungrammatical German is a better guide in philosophy than our British writers, whose style is as clear as their thoughts? And yet this is what Mr. Stirling would have us believe—Mr. Stirling, who can give us no better account of the "Secret of Hegel" than the following:—

"The secret of the universe is thought, the spirit of thought, whose own life is the play of what is, and that which is, is thought in its own freedom, which at the same time also is its own necessity. The absolute is the vibration of a mathematical point, the tinted tremble of a single eye, infinitesimally infinite, punctually one, whose own tremble is its own object, and its own life, and its own self."

We regret that we are unable to explain what kind of absolute is the vibration of a mathematical point, etc.; for it is stated by Mr. Stirling, on behalf of Hegel, that there is more than one kind of absolute:—"Your Absolute and your Infinite may be, and I doubt not *are*, quite incomprehensible, for they are chimeras of your own pert self-will; whereas I confine myself to the realms of fact and the will of God. So, on such points, one might conceive Hegel to speak." But in what respect the tinted tremble of a single eye, or the vibration of a mathematical point, are more intelligible, we have failed to discover. Nay, our "pert self-will" prompts us to inquire in what realms of fact Mr. Stirling or Hegel discovered the vibration of a mathematical point, which is at the same time the tinted tremble of an infinitesimally infinite single eye. We should also like to know by what process either Hegel or Mr. Stirling ascertained the will of God in matters of philosophy.

But, it may be said, allow that there is any amount of absurdity in Hegel's writings, allow that he knew neither how to write nor how to reason, yet you must allow that he had some fundamental principle about which he attempted to reason and to write. If so, what was that principle? To this question we think we have discovered the answer, but it is very different from the answer given by Mr. Stirling. Hegel, we believe, just failed in grasping firmly the fundamental law

of relativity or discrimination ; and, having failed to grasp it, he tried to escape from it. Hegel and this law seem to us like two ancient wrestlers, whose bodies and limbs have been well oiled before the struggle. Hegel advances, apparently has the law in his grasp for a moment, but the next moment appears powerless and drops to the ground ; he gets up, skulks round the ring until he is forced to close once more, and then his adversary again eludes his grasp and trips him up ; and so on *ad infinitum*. Hegel's two hands, so to speak, are his "Something" and "Other"; but they are sadly clumsy hands to start with, and Hegel has no skill in the use of them ; he gets them into such awkward positions, that he soon forgets which is his right and which his left, and ends by believing that he has only one hand, which is right and left, and neither and both, all at once.

All that is true in Hegel's philosophy is the statement of the law of relativity—the law that whatever is known, is known only in its relation to other objects of knowledge, and in its relation to the knowing subject. But we do not hesitate to say, that the principle is worse stated by Hegel than it could possibly have been stated by any British psychologist. It is so badly stated, that it is impossible to believe it was ever fairly grasped by Hegel—so badly, that it leads Hegel himself to self-stultification. That Hegel never fairly comprehended this law, we believe we should be justified in asserting, if we had no other evidence than the single fact that he starts with dogmas and arguments about the indeterminate, whatever that may be. It is clear that, inasmuch as human reasoning must conform to the laws of human thought, which involve the perception of resemblances and differences, the reasoning about the indeterminate must involve resemblances. But no two things can resemble one another unless they possess similar attributes ; and yet, according to Hegel, "the Indeterminate" has no attributes, and every thing which has attributes is "determinate". It follows, then, that, in order to reason about "the Indeterminate", or that which has no attributes and stands in no relations, we must treat it precisely as if it had certain attributes and stood in certain relations. In order to be Hegelian, we must start with the assertion that what is beyond our understanding is not beyond our understanding. In this one proposition, we believe the whole Hegelian philosophy is summed up ; admit it, and you may admit anything else you please—that every thing is its other, that a man is his wife, that the obverse of a coin is the reverse, that the right hand is the left, that the outside of Bedlam is the inside. And here we should leave Hegel and his followers in general, had we not a word or two more to say about Mr. Stirling in particular.

Mr. Stirling tells us that he has devoted to the study of Hegel "a

greater number of years, and for a greater number of hours in each day of these years, than it is perhaps prudent to avow at present." There is something touching in this confession ; there is something in it which is at once manly and modest, and which prepossesses us in the writer's favour. Would that the general tone of Mr. Stirling's work were similar ! But, unfortunately, there is an arrogant assumption of superior knowledge, an exaltation of German intellect, of which Mr. Stirling is the sole exponent, at the expense of English intellect, of which Buckle is represented as the best type. In all things intellectual, Mr. Stirling tells us, we are surpassed by the Germans. Style is of course included ; and Mr. Stirling, partly perhaps unintentionally, but without doubt partly from a fixed resolve to imitate, has effectually Germanised his style. The following passage is a not unfair specimen both of his matter and of his style :—

"Hegel is more impervious than Kant ; yet still, despite the exasperation, the positive offence, which attends the reading of such exoteric works of his as have been attempted to be conveyed to the public in French or English, we see cropping occasionally to the surface in these, a meaningfulness of speech, a facility of manipulating, and of reducing into ready proportion, a vast number of interests which to the bulk of readers are as yet only in a state of instinctive chaos, and just on every subject that is approached, a general overmastering grasp of thought to which no other writer exhibits a parallel. In short, we may say that, as regards these great Germans, the general public carries in its heart a strange secret conviction, and that it seems even to its own self to wait on them with a dumb but fixed expectation of infinite and essential result."

Mr. Stirling is very hard upon the *Aufklärung*, the illumination or enlightenment—a name which he gives to the school of writers which we Englishmen commonly regard as intelligible. Macaulay and Buckle are Mr. Stirling's favourite examples. He objects to Macaulay, but Buckle is his abomination. No wonder ! The man who could write the above passage, need not tell us that he has an aversion to the light ; he need not tell us that he and the Germans are unlike Buckle and Macaulay ; he need not tell us that all Macaulay's and all Buckle's graces of style are thrown away on this ungainly imitator of a German hobbadehoy. And yet we are to unlearn all that we have learnt, in order that we may think and write like Hegel and Mr. Stirling. We are to give up our enlightenment, and with it, apparently, also our refinement. When an opponent has but just dropped down exhausted under the heavy weight of too vast a scheme, we are to spurn his remains, and vituperate him as follows :—

"He had a theory, had Mr. Buckle, or rather, a theory had him—a theory, it is true, small rather, but still a theory that to him loomed

huge as the universe, at the same time that it was the single drop of vitality in his own soul ;” and then in a more grandiloquent if not more intelligible strain, “If Mr. Buckle did penetrate the Germans, he found that there was nothing left him but to burn every vestige of that shallow enlightenment which, supported on such semi-information, on such weak personal vanity, amid such hollow *raisonnement*, and with such contradictory results, he had been tempted, so boyishly ardent, so vain-gloriously pompous, to communicate—to a world in many of its members so ignorant, that it hailed a crude, conceited boy (of formal ability, quick conscientiousness, and the *pang* of illumination,—inherited probably from antecedents somewhere) as a ‘vast genius’, and his work—a bundle of excerpts of mere illumination, from a bundle of books of mere illumination, disposed around a ready-made presupposition of mere illumination—as a ‘magnificent contribution’ fruit of ‘vast learning’, and even ‘philosophy.’”

The first question which presents itself, when we meet with this tirade against enlightenment, is—what can Hegel or Mr. Stirling give us instead? They can give us, it appears, a crystal skeleton which is invisible. We are not anywhere informed in what respects an invisible skeleton is the better for being made of crystal :—

“Hegel, *in effect*, has only cleared relations of ideas into their *system*—that crystal skeleton which, the whole *truth* of the concrete, of sensuous affection, of matters of fact, underlies and supports the same. Of this, so to speak, invisible skeleton causality is but one of the bones.”

We think, indeed, that Mr. Stirling is a worthy disciple of Hegel ; and these two philosophers remind us of two celebrated works of art. There is, or was, a painting called “The Israelites crossing the Red Sea.” It was nothing more than a large red daub. The artist was asked for an explanation. “That’s the Red Sea”, said he. “But where are the Israelites?” “They are on the other side”. “And where is Pharaoh with his host?” “They are at the bottom”. The second work of art to which we refer is a photograph immortalised by Albert Smith. It was shewn to him by a friend. “But there is no picture here,” said Albert Smith. “Oh ! yes ! that’s Strasbourg Cathedral”. “Strasbourg Cathedral?” “Yes ; Strasbourg Cathedral at midnight”. “Nonsense, what do you mean?” “Why, if you went out at midnight and it was pitch-dark, you would not see it, would you?” “No”. “Very well ; that’s just what I did when I was at Strasbourg ; and I photographed the Cathedral in the dark, and there it is”.

Now it appears to us that Hegel has, as it were, painted the Israelites crossing the Red Sea, and that Mr. Stirling has taken a photograph of the picture in the dark. Hegel’s philosophy is a huge daub, in which there are no lights and shades except such as may reach it from the objects by which it is surrounded ; Mr. Stirling’s reproduction is paper and nothing more.

We think we cannot do better than conclude this review with one more very elegant extract from Mr. Stirling's preface ; it is not for us to suggest any application of the words :—

“An empty belly, when it is active, is adequate to the production of gripes ; and when an empty head is similarly active, what can you expect but gripes to correspond—convulsions namely, contortions of conceit, attitudinising, eccentric gesticulations in a wind of our own raising ? It were easy to name names and bring the criticism home ; but it will be prudent at present to stop here.”

THE SKULLS OF THE INHABITANTS OF THE CAROLINE ISLANDS.*

By one of those accidents which have led some ethnologists to imagine that the islands of the vast Pacific have actually been peopled, and which have been made to do service in the great system of “accidental philosophy”, a number of crania of the natives of the Caroline Archipelago came into the hands of those zealous cultivators of science, the Dutch medical officers of Java. As none of the Europeans who have visited this Archipelago had taken the pains to collect the skulls of the inhabitants, and thus nothing was known of their cranial conformation, great interest must be attached to the first description of these curious objects—which description has now been made by a most competent observer, Professor J. Van der Hoeven, of Leyden, the author of similar histories of the skulls of many other races.

In the year 1858 Capt. D. Herderschee, of the Dutch ship *Amsterdam*, sailing from Hong Kong to Melbourne, at a distance of ninety German miles from the Pellen (Pelew ?) Islands, met with a canoe containing twelve men and women. They were in great distress, famished and weak, so that they were almost reduced to skeletons, and were covered with vermin. Captain Herderschee took them on board his ship, and conveyed them to Batavia. Neither on shipboard, nor in this city, could their language be understood. With the exception of two, who had suffered the least, they were all sick when landed, and were sent to the Hospital. Three of these died immediately, and the rest soon afterwards ; indeed, only one of the twelve appears to have escaped. As the language they spoke could not be comprehended, there was some doubt as to their origin.† It was, nevertheless, concluded by Capt.

* *Beschrijving van Schedels van Inboorlingen der Carolina-Eilanden*, door J. Van der Hoeven. 8vo, pp. 16, 2 pl. Amsterdam : 1865.

† Among the twelve islanders, some gave other names to the same objects, so that it is uncertain whether they were all derived from the same island.

Herderschee, who found them, and by others, that they were from the Island of Wolia, Olee, or Ouléa, which is in the Caroline Archipelago; and that they had wandered on the ocean for about one hundred days. There are many reasons to place confidence in this conclusion. Choris, speaking of "Kadou", the native of this island met with in Kotzebue's Voyage, and who had visited the Pelew Islands, tells us that they are bold navigators, and undertake great sea voyages, and that they sail annually to the Isle of Guaham, one of the Mariana group. Their peculiar kind of tattooing also, and their mode of distending the lobes of the ears by hoops of tortoise-shell passed through holes in them, exactly agree with the accounts given by voyagers of the Caroline Islanders.

By the diligence of Dr. C. Swaving, who has distinguished himself as a collector of crania, nine of the skulls of these islanders have been sent to Holland. Four of them were first of all placed in the hands of the late Professor Willem Vrolik, with a number of articles of dress and of ornaments, and the alphabet (vocabulary?) of their language. These are described in the Catalogue of the Vrolik Museum.* In consequence of the lamented death of Professor Vrolik, these skulls were reclaimed by Dr. Swaving, and presented, with four others, to the Anatomical Museum at Leyden, where a ninth, that of "Soejoer", is also placed.

Professor van der Hoeven's Memoir consists of a careful description of these skulls, together with measurements and numerous observations, both on the crania and other subjects. It is illustrated with a good wood-cut of the skull of "Taralipa", showing its form vertically, and two very neatly executed lithographic plates, giving a front and profile view of the same skull, and profiles of those of "Taraloni", and of that of the woman "Laepat", all half-size; and followed by a table of measurements, according to Professor van der Hoeven's method.

Of the crania entering into this description, seven are those of men, and two those of women.† The male skulls occupy the attention of the author first.

* *Musee Vrolik Catalogue de la Collection d'Anatomie*, etc., par J. L. Dusséau, 8vo., 1865, p. 120.

† By the kindness of the Leyden professor, the fine skull of "Erolimo", No. vi of his table, has passed into the collection of the writer, No. 1260. It is inscribed "Erolimo van het eiland Oolea, Carolinen-eilanden. Obiit 14 Dec. 1863. Swaving." It is the cranium of a man of probably forty years of age. The alveoli of some of the incisors of the right side, the inner tooth of the upper mandible, and both those of the lower, are entirely absorbed, presenting the appearance of those of Kanakas and Australians whose teeth have been punched out in early life, during certain ceremonies. But, in this skull, those of the two last upper molars on the left side are also totally



Fig. 1.

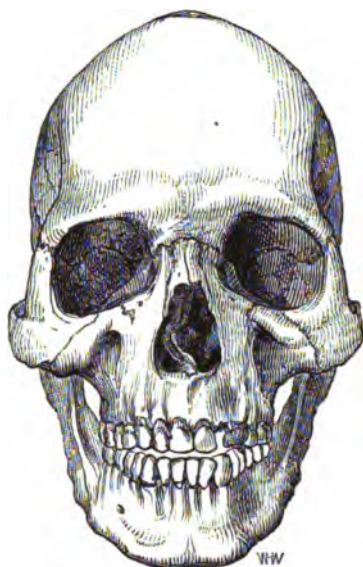


Fig. 2.

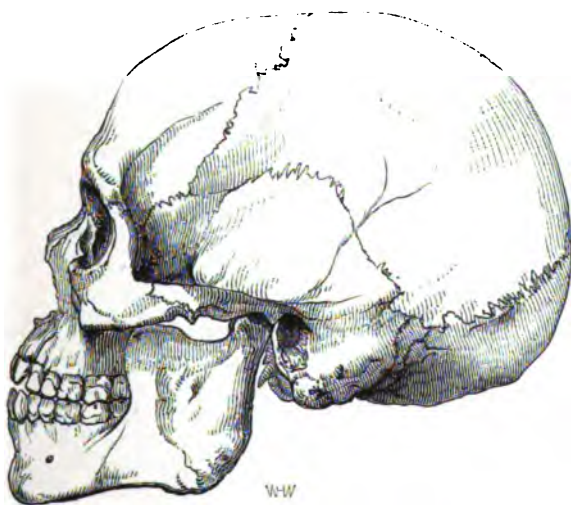


Fig. 3.

Figs. 1, 2, and 3.—Skull of "Biat," Lifu, Loyalty Islands. No. 816. One-third size.





Fig. 1.

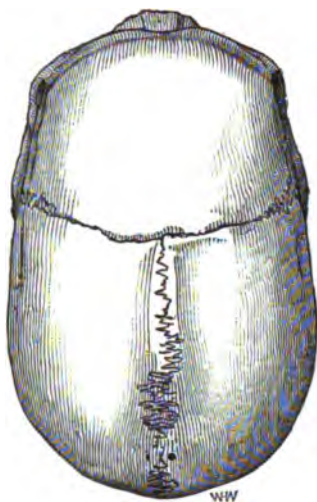


Fig. 2.

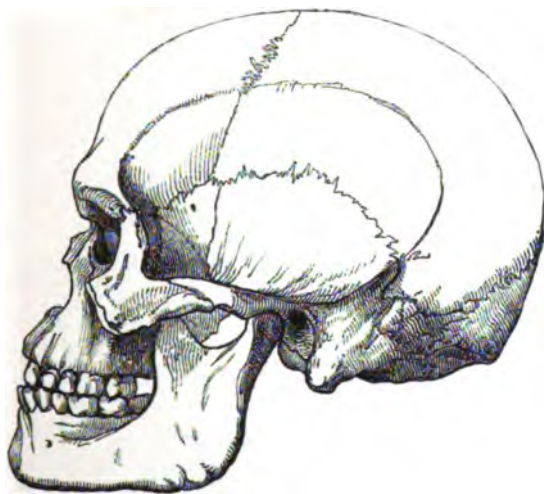


Fig. 3.

Figs. 1, 2, 3.—Skull of "Kilala," Ape, New Hebrides. No. 820. One-third size.



The Professor remarks, *in limine*, that all the skulls agree in having one oblong form; they belong to a people which, in the terminology of Retzius, must be named *dolichocephalic*. This is pre-eminently the case; and, upon such chief distinguishing feature of the whole series, some further remarks will be made in the sequel.

The statement of Dr. Van der Hoeven is, that the mean circumference of the skulls is 515 millimeters, equal to 20.3 inches English. This is greater than the circumference of the skulls of Javans, which is 499 mm.; and, on the contrary, less than that of the skulls of German people, 528 mm., observed by the author. The mean circumference of the Caroline Islanders' skulls agrees with that of the Chinese skulls, which he had previously measured. It may be remarked, that Professor Van der Hoeven, throughout his memoir, compares the skulls described with those of Chinese.

The length of the crania varies from 171 mm. to 191 mm., the mean of the author being 182 mm., or 7.2 inches. In six Chinese skulls the average was 180 mm. The mean breadth between the parietals is 126 mm., or 5 inches. This, it should be observed, is a remarkably small transverse diameter in adult skulls. The author adds, that in six Chinese skulls he found the average breadth to be 137 mm., or more.

The arch of the calvarium, measured from the root of the nasal bones to the anterior edge of the *foramen magnum*, he makes to be, in the mean, 382 mm., or 15.1 inches, which is an unusually long arch. Of this mean measure, the greatest portion is absorbed by the parietals, a lesser by the frontal, about 14 mm. less, and the smallest by the occipital, about 18 mm. less than the frontal.

The height of the skull, in the mean, amounts to 142 or 143 mm., or 5.6 inches. In Chinese skulls the author found this measure to be 145 mm., but some of these were particularly high examples.

From such measurements it appears that the skulls are oblong, narrow and tolerably high.

The author next proceeds to a more minute description of the individual bones of the cranium of the men, into which we do not propose to enter at length. The frontal bone is moderately long, and the point of junction of the coronal and sagittal sutures is, in five of the skulls,

effaced from caries, and it is probable that the alveolus of the canine of this side of the jaw has likewise perished in the same way. The skull is remarkable for the complete ossification of much of the coronal suture, especially its middle portion, and also of the sagittal, which can be traced only at its posterior extremity. This extensive *synostosis* has scarcely interfered with the normal form of the cranium, hence was probably post-congenital. The right *foramen parietale* is still persistent, the left absent.

perpendicularly over the anterior edge of the occipital foramen ; in two skulls, only just before it. In all, the sagittal suture is longer than the frontal bone. Such also is commonly the case in German skulls, although there are examples in which the length of the frontal exceeds that of the parietals ; which, according to Professor Van der Hoeven's earlier observations, he says, appears contrariwise, to be the rule in Slavic and Tschudic skulls. The frontal is proportionally arched, most prominent in the middle,* and gently gliding to the sides, without plainly developed *tubera frontalia*. The *glabella* in most of the skulls stands out strongly. The *tubera parietalia* are placed in a backward position. The outer plate of the pterygoid processes of the sphenoid, is, in most of the skulls, very broad, and directed outwards. This conformation is strongly expressed in the skull of "Erolimo". The nasal bones are not flat, but form with one another a more or less acute angle ; they are narrow, and under the *glabella* appear somewhat less prominent than towards their lower extremities. In their connection with the frontal, they always ascend higher than the adjacent *processus nasales* of the superior maxillæ. The jugal arches do not project prominently outwards.† The teeth are sound, and Professor Van der Hoeven did not observe one affected with caries. This is not inconsistent with the remark made before on the teeth of "Erolimo", which, strictly speaking, do not exhibit indications of caries, although there remain obvious proofs of extensive caries of the alveoli ; still most likely the sequel of caries of the teeth.

Into the particular description of the skulls of the two women it is not proposed to enter here, as they present sexual peculiarities chiefly, if not wholly, and, as the author justly observes, it would be rash to conclude upon the sexual peculiarities of the women of the race from two examples merely. He mentions one anatomical anomaly, which occurs on both sides in one of the women's skulls, and on the right side in one of the seven skulls of men ; an anomaly which Hyrtl, in his *Lehrbuch der Anatomie des Menschen* (Prag, 1846, 8vo., S. 177), says is very rare. It consists in the prolongation of the outer plate of the *processus pterygoideus* of the sphenoid backwards at its base, and its consolidation with the spinous process of the great wing of the sphenoid bone. Above this junction there remains an oblong hole, situated immediately below the *foramen ovale*. The writer has long since observed this peculiarity in other skulls, and cannot consider it very rare.

* This peculiarity will obtain further attention hereafter.

† In the skull of "Soenjoer", the jugal process of the temporal bone is divided by a suture into an anterior and a posterior part. This suture is placed a little before the anterior edge of the articular cavity for the head of the lower maxilla.

The remaining portions of this excellent and instructive memoir are chiefly devoted to the elucidation of geographical points, arising out of the acquisition of these rare skulls. As previously remarked, the commander of the ship, Capt. Herderschee, considered these natives to come from the island of *Wolia*, but the reasons for this opinion are not given. There is no ground for regarding this island as new to geography. It is most likely that named by De Torris *Guliai*, and by others *Oelee*, or *Oellie*,* and would be the same from which "Kadou", who was met with by O. Von Kotzebue, was derived. It is situated in the western part of the great group of the Caroline Islands, in about 7° of N.L., and 144° E.L. The Caroline Islands, as laid down in our maps, extend over a vast space of the Western Pacific, and really consist of numerous distinct archipelagos, the natives and the productions of which probably differ very materially in the different groups. Of these, as well as of the various islands themselves, not a great deal seems to be known with much accuracy. Still, the islands were discovered long since, and often have been visited. Captain Freycinet, who gives an extended and interesting historical account of the communications of different navigators with the Carolines, attributes to the Portuguese, Diego da Rocha, in 1526, the honour of opening the way. The Spaniards had been long established in the Mariana Islands to the north, which are still a dependency of the Spanish government of the Philippines, when, about 1686, Lascano fell in with the Island of Farrollep, and named it Carolina, in honour of Charles II of Spain. Ten years afterwards a canoe containing twenty-nine persons, men and women, from the Islands of Lamoursek, was driven to the Island of Samar, one of the Philippines. This event led to other expeditions of discovery. The description of the adventures of Captain Wilson, of the English ship *Antelope*, which was wrecked, in 1783, on the Islands of Palao, or the Pelew-Islands, affords the fullest and most authentic account of these isles. He remained three months on shore with his companions, built a new vessel, and sailed to China.† An eastern archipelago, the Radak Islands, was visited by Otto von Kotzebue, in 1817; indeed, the principal object of Kotzebue's expedition was to make researches in the Marshal Islands, an archipelago somewhat to the east of the Carolines. Choris was the artist to this expedition, hence his figure of "Kadou", regarded as the most authentic portrait of a Caroline Islander known. In 1819, Freycinet, in the voyage of the "Uranie" and "Physicienne", touched at the Carolines, which led

* "Ile dont le nom s'écrit aussi *Guliyai*, *Ulle*, *Oli*, *Uléa*, *Uléé*, et même *Vlee*." Freycinet. *Voyage de l'Uranie*, ii, 81.

† *Account of the Pelew Islands*, by G. Keate. 4to.

him to devote so much space to the history of discovery in these islands, in his great work on the voyage.*

The people inhabiting these numerous isles of the Western Pacific are still very imperfectly known, notwithstanding the visits of many navigators. Professor Van der Hoeven tells us that accounts of them generally agree in the following particulars:—They are of middle stature, not all of the same colour, even in the same island there are differences of tint, the darkest coloured are those of lower stature. Their teeth are white, not filed or dyed black like those of Malays. A defined national physiognomy cannot be detected in their features. They go almost wholly naked, but adorn themselves with dark blue tattooed stripes on their arms and legs, placed lengthwise. Moreover the ears are bored, and the lobes are sometimes inordinately stretched by the objects worn in them for ornaments. In these holes they wear rolls or rings of tortoise-shell or bone, and the women decorations of flowers. We refrain from following the author into an account of the manners, weapons, etc., of the islanders. With these relations respecting the Caroline Islanders, the observations of Dr. Swaving on those whose skulls were sent to Leyden, fully agree, so that there cannot be a doubt of their being really Caroline Islanders. From this gentleman's description we may quote a few statements. Their *hair* was exceedingly *black and smooth*, with the exception of the woman "Laepat", whose hair was rather crisp. Some of the men had whiskers and moustaches. The woman "Natioli" appeared to have had the hair eradicated from the *labia*, which were tattooed, an operation peculiar to her. The eye-lashes were thick, and the nose more pointed than in the Malays of Batavia. The eyes were black, but not large. The colour of the skin, which was covered with a scaly eruption, was a deep brown. One man wore a necklace. With the exception of two men, they all had their skins tattooed, although in different fashions. Save in the case of "Natioli", this ornamentation was limited to the extremities. They had only a cincture round the loins for dress. From this girdle hung down between the thighs a tissue formed of bark.† Prichard gives a lengthened account of the Caroline Islanders, and alludes to the ridiculous nickname bestowed upon them by M. Lesson, of *Pelagian Mongols*.‡ As far as these crania of Caroline Islands are concerned, the epithet Mongolian, when applied to them, would be the most unfortunate and inapposite that could be hit upon in the whole vocabulary of hypothetical ethnography.

Skulls of Caroline Islanders were previously unknown, but figures of

* *Voy. autour du Monde de l'Uranie et la Physicienne*, 1817-1820, par M. Louis de Freycinet. 4to et fol. 1829.

† *Musée Vrolik*, p. 118.

‡ *Physical Researches*, v, 179.

the natives themselves appear in many works. The best probably, as already mentioned, is that of "Kadou", in the *Voyage Pittoresque* of Chloris, part v, pl. xvii. In the Atlas Historique of Freycinet's *Voyage de l'Uranie*, there is a fine plate of a Caroline Island woman and man, of the Island of Guam, pl. 53. These are of a brownish tawny colour, and much tattooed on the legs. The figures, as Dr. Van der Hoeven justly remarks, remind one so much of drawings of an European Academy of Fine Arts, that it is difficult to regard them as authentic. The drawings are from the hands of M. Jacques E. V. Arago, the artist of the expedition, who furnished similar figures to his own work, *Promenade autour du Monde*. Plate 54 of the *Voyage* represents two men dancing, and plate 55 a group of fourteen Caroline Islanders engaged in a dance. These and other fine plates of this Atlas are very beautiful, but have such an air of European *beau idéal* as to make one hesitate about their fidelity, which nevertheless may be real. In the last voyage of the *Astrolabe*, under the command of Admiral Dumont D'Urville, Dr. Dumoutier obtained moulds from three Caroline Islanders, belonging to the group of Lougonor or Nougonor. They were taken from young men of twenty to twenty-five years of age. Casts have been obtained from these moulds, and are deposited in the Galerie Anthropologique, at the Jardin des Plantes. The authenticity of these is beyond question, and, being of the size of life, they are both perfectly reliable and of very great value. Fine lithographs of these busts taken from photographs, are given in Dumoutier's Atlas (*Anthropologie. Voy. au Pol Sud*), and M. Émile Blanchard, in the volume entitled *Texte de l'Anthropologie*, comments upon them. In one passage M. Blanchard remarks that the Caroline Islands are so multiplied over so considerable an extent from west to east, and the descriptions of voyagers are so variable, according as they apply to the inhabitants of one isle or another, that we believe the natives of the archipelago are far from all being identical.*

* A sentence of M. Blanchard's work deserves to be quoted at length. He says:—"On sent quel vaste champ de recherches reste aux explorateurs; combien il serait à désirer que ceux qui visiteront les îles de l'Océanie s'attachassent à recueillir un grand nombre d'empreintes du visage de ces insulaires, et de portraits pris au daguerréotype; combien il serait utile aussi que l'on s'attachât à se procurer des crânes et même d'autres parties du squelette en quantité considérable! C'est seulement avec de tels éléments que la science anthropologique pourra progresser. On le voit à chaque pas, rien de contradictoire comme les impressions des voyageurs. Les uns considérant des hommes qui se ressemblent beaucoup en réalité, les déclarent absolument de même race, absolument comme une personne peu exercée en voyant plusieurs espèces voisines d'animaux, et ne sachant pas saisir les différences, n'hésite pas à les trouver toutes pareilles. Les autres, au contraire, mieux doués sous le rapport du tact d'observation, ce qui n'est pas

Before leaving Professor Van der Hoeven's excellent memoir, it should be mentioned that he has examined the vocabulary put down by an English missionary, who was on board the *Amsterdam* with the Caroline Islanders, and which Dr. Swaving sent to the late Professor Vrolik, and compared it with that of Arago in the work above cited. The result is the discovery of such an agreement between the two as to take away all doubt from the mind of Dr. Van der Hoeven, and to assure him that the natives rescued in the canoe were derived from one or more of the Caroline Islands.

It is now proposed to add a short commentary, with a view to attempt to explain and illustrate these rare skulls a little more fully.

I. It must be observed that the whole of the skulls, which the writer has had an opportunity of examining, agree in a remarkable manner. They not only agree, but they present such a peculiar conformation as to prevent their being confounded with any other series of crania generally known.

These skulls are distinguished by unusual dolichocephalism, or *great length* and *narrowness*, to which is conjoined *great height*. Professor Van der Hoeven's measurements afford a length of from 171 mm. to 191 mm., or a mean of 182 mm.; a mean breadth of 126 mm., and a mean height of 143 mm. These dimensions yield the uncommon proportions of breadth to length, regarded as 100, (according to our method of measurements, J), '68, i.e. Broca's *Indice Céphalique*; and height to the same (our K.) '78. These ratios in twelve English skulls of men are respectively J '77, K '73; in eleven English skulls of women J '76, K '73; in twelve skulls of Chinese men J '77, K '78; in four skulls of Chinese women J '78, K '79; in the whole sixteen skulls of Chinese men and women J '76, K '78. This is adequate evidence of the remarkable general form of the nine crania of the presumed Caroline Islanders, and of its total diversity from that of English and Chinese skulls. In the description of these skulls, Professor Van der Hoeven has observed, besides their general length and narrowness, the prominent ridge which runs down the middle of the frontal bone, and also the great length of the sagittal suture, and of the parietals. This ridge is continued slightly along the line of the sagittal suture, and being accompanied with an unusual lowness of the parietal tubers, these crania are greatly approximated to those *synostotic* skulls, which have obtained the denomination of *scaphocephali*. In fact, the writer has been inclined to regard them as *natural scaphocephali*, and they

départi à tout le monde, sont frappés par des dissemblances qui avait échappé aux premiers et voient des types différents là où les précédents avaient cru voir des types identiques. De là cette confusion répandue de toutes côtés."

—P. 104.

have probably a stronger claim to be considered such than the skulls of Esquimaux, before pointed to by Professor H. Welcker.*

II. Allowing that these crania agree among themselves, whilst they differ in a singular manner from those of other well-known races, and there need be no hesitation in making these statements, it may next be asked, *are there any skulls of less known people which exhibit a similar conformation?* This question may be answered in the affirmative. In the extensive collection of crania formed by the writer, his attention was long since arrested by a series of skulls, all of which are derived from the same region of the Pacific Ocean as these of Caroline Islanders; which series stands out pretty distinctly from the rest of the skulls of human races hitherto known and described. Their peculiar features have already been alluded to. They are unusually long, unusually narrow, and, at the same time, very high, or tall. Taken proportionately, those of the Caroline Islanders do not present the features in so exaggerated a degree as others of the series. The frontal tuberosities are less prominent than usual, and the parietal tubers have a still greater depression. The parietal bones are long, and sometimes elevated at the sagittal suture, so as to approach in form the *carina* of scaphocephalism, which ridge, in some instances, as already noticed, may also be discriminated along the frontal bone. They are distinguished by great fullness and length of the occipital region, and sometimes considerable prominence of the zygomatic arches. Although prognathism occurs among them sometimes to an exaggerated degree; yet, at times, as in the Caroline Islanders, it is absent, or not remarkable.

It may be well to state explicitly, that the above is somewhat an ideal picture, intended to mark the peculiarities of this series of crania in a distinct manner; individual instances nevertheless occurring with all these features, even in an extreme form. In nature it is sometimes found that the skulls of the people to whom this peculiar type appertains, and to which we have applied the distinctive term high-narrow skulls, or *hypsi-stenocephalic*, exhibit it in various degrees; and, in some individual cases, the distinctive features are in a great measure wanting. But this is quite in accordance with the usual diversities of nature.

These hypsi-stenocephalic crania are sometimes seen in an extreme form in the skulls of *Loyalty Islanders*, as in No. 810, No. 811, and especially No. 816, the skull of "Biat", from Lifu, in the writer's collection. The length of this latter is 7·6 inches, or 192 mm., its breadth 5 inches, or 127 mm., and its height 5·8 inches, or 147 mm., which, expressed proportionally, afford $\approx 100, \text{ } \text{J } \cdot 65, \text{ } \text{K } \cdot 76$. They are also seen

* *Untersuchungen über Wachsthum und Bau des Menschlichen Schädels*, 4to, 1862, S. 118.

in *New Hebrideans*, No. 575, from the Island of Erramanga ; No. 815, from the Island of Tana ; No. 817 and No. 819, from the Island of Fate, or Sandwich Island, all strongly marked examples ; and such also is No. 820, from the Island of Apee. And they likewise occur among *New Caledonians*, as in No. 812, from the Isle of Pines ; and No. 813, the skull of "Joey", from the Isle of Yengen.* As far as can be judged from two specimens of the skulls of women from the *Feejee Islands*, Nos. 233-4, they also seem to appertain to this hypsi-stenocephalic group. Dr. Pickering made the remark, "The Feejeean skulls brought home by the expedition will not readily be mistaken for Malayan ; they bear rather the negro outline ; but they are much compressed, and differ materially from all other skulls that I have seen".† This passage appears fully to confirm our view.

It must remain for future investigators to determine the degree to which this peculiar type prevails in these groups of islands. As far as can be at present ascertained, it is general, yet marked with different shades of intensity in different cases. That it is not universal the instance of No. 1159, a New Caledonian skull, derived from Dead Man's Peak, which is at the entrance of the River Kanala, on the east coast, shows. This cranium does not present the extremely long, narrow, high form ; but, as it has been artificially deformed, whether intentionally or not, by an extensive parieto-occipital flattening on the right side, it is of no weight in the argument.‡

* In the first volume of the *Bulletins de la Société d'Anthropologie*, there are some valuable descriptions of the skulls of New Caledonians, by M. de Rochas (see also *La Nouvelle Calédonie et ses Habitants*, par le Dr. Victor de Rochas, 1862) and M. Bougarel, which are illustrated by a series of seven plates, representing the crania in five different aspects. M. Rochas, in his table of measurements, introduces a skull from the Isle of Pines, and another from the New Hebrides, both of which are of the extreme length of 200 mm., or 7·9 inches. M. Bougarel points out clearly the specific forms of the New Caledonian skulls, and shows how these evidently differ from those of Polynesian Islanders.

† *The Races of Man*, 1848, 4to, p. 145. U.S. Exploring Expedition.

‡ The history, descriptions, and measurements of these crania, will be included and given at some length, in a work now in a state of great preparation for the press—*Thesaurus Craniorum*, Catalogue of the Skulls of the various Races of Man, in the Collection of Joseph Barnard Davis, M.D.

It may not be quite out of place here to mention, that some of the crania to which we have referred manifest an extremely savage form, or, more properly, an extreme of that form to which we are disposed to apply the terms savage and ferocious. No. 818, a skull of a young man from Fate or Sandwich Island, is the most prognathous and most pithecoïd cranium in the whole collection. The enormous and wide jaws, forming the segment of a large ellipse, filled with a perfect set of very robust but fine teeth, almost necessarily carry back the thoughts to anthropophagism. The large, very

III. It becomes a question for craniologists to determine whether these skulls, to which the name hypsi-stenocephalic has been applied, may not deserve to be ranked as a chief class, somewhat on a level with the three great classes of skulls deduced by Blumenbach from his vertical method, viz., the Caucasian, Mongolian and Ethiopic; or the two great divisions of Retzius, the dolichocephalic and brachycephalic. The latter terms mark extreme forms, just as black and white in colour; therefore, the proposed class cannot be quite so distinctly defined. Like red and blue in colours, they are in some measure intermediate, but not the less capable of being discriminated. They certainly do differ from all the other great divisions of skulls, although they approach nearest to those of some tribes of African negroes. Camper pointed out the dolichocephalism of these latter, and, indeed, he also spoke of the great breadth of the skulls of Asiatics, and the middle position in this respect of those of Europeans. The observation with regard to negroes was supported by Soemmerring,* and confirmed in the great work of Van der Hoeven.† In some respects, no doubt, these crania of Pacific islanders *approach* those of African negroes, but they agree with them in a very partial manner indeed. The great *height* of the *calvarium*, combined with its narrowness, is not seen in African skulls; and, instead of the flat nose, the result of the broad plane form of the nasal bones, and, equally so, of that of the nasal processes of the superior maxillaries, in the Pacific islanders' skulls the nasal bones are narrow and elevated at their juncture into an acute angle, whilst the before-mentioned nasal processes are entirely conformable, and inclined to each other at an equally acute angle.

We do not pretend to define what ought to be the exact value of hypsi-stenocephalic skulls in any arrangement of human crania, but have no hesitation in saying that they deserve a distinct place, apart from all others.

IV. Further inquiry will have to be directed to these subjects before it can be determined with any degree of confidence to what different peoples this peculiar cranial conformation belongs. It seems every way probable, that the Archipelagos of the New Hebrides and

projecting face, above which an extremely sloping narrow forehead does not stand up, but strongly recedes backwards, give the perfect image of the muzzle of an ape. The calvarium of this skull, when seen in profile, very closely resembles, except in the irregularity of outline occasioned by the compressing bandages, that of an ancient Peruvian; such, for example, as that of Morton's, pl. 3, or that of the Clickatat, pl. 48 (*Crania Americana*).

* *Ueber die Körperliche Verschiedenheit des Negers vom Europäer*, 1785, S. 19.

† *Bijdragen tot de Natuurlijke Geschiedenis van den Negerstam*, 4to, 1842, bl. 23.

of New Caledonia may be regarded as the focus of hypsi-stenocephalism; from whence it radiates eastwards to the Loyalty Islands and probably to the Feejees, and westwards and northwards to the Caroline Islands; with how many intermediate points it is at present, from the very imperfect knowledge we possess of the craniology of the Pacific, which might more properly be called deplorable ignorance, impossible to tell.

There is, however, evidence to show that it is not universally, and, as it were, indiscriminately, distributed throughout the numerous *adjoining* or *approximate* archipelagos of this great region of the Western Pacific. It is most probable that it is limited to particular islands, or groups of islands, within the bounds to which it does extend. The Salomon Islands constitute a large archipelago to the north-west of the New Hebrides and New Caledonia. The writer's collection includes five skulls of Salomon Islanders, and there are others buried in the cellars of the British Museum. These agree in their general forms; they are not high, they are even particularly low in the frontal region, and have a peculiar angular, bony, savage aspect, with prominent parietal tubers. On reverting to the figures of the busts of Caroline Islanders, and of Salomon Islanders also, in the splendid atlas of Dumontier, it will be seen, not only that the latter agree closely with the account now given of the skulls of Salomon Islanders, but, likewise, that the three busts of Caroline Islanders do not exhibit any material differences from these skulls; on the contrary, they really belong to the same species. Hence, the inference is, that there are different cranial configurations in the islands of the Caroline archipelago; that of some islands may be called hypsi-stenocephalic, whilst that of other islands presents a striking conformity with that of Salomon Islanders. At all events, the series of crania described by Prof. Van der Hoeven, and which there seems good grounds for regarding as authentic, differ essentially from the natives of the Lougonor or Nougonor group of the Caroline Islands. And this is fully confirmed by the account of the busts given by M. Blanchard, when he compares them with Polynesians. His words are:—"Ce sont des physiognomies plus intelligentes que celles des Polynésians de l'est, *des têtes plus rondes, des fronts plus développés*," p. 100. The greater roundness of the heads of these natives of Lougonor, or Nougonor, than those of Polynesians is in conformity with the figures of the busts, and also in agreement with our skulls of Salomon Islanders; but the statement is totally at variance with the crania described by Professor Van der Hoeven. This may be considered to confirm, almost to prove, the essential diversity of the races peopling the different islands comprehended under the name of the Caroline Archipelago.

V. That the Islanders brought by the canoe to Batavia could not belong to any race of people to which the term Papuan can be applied, is undoubted; still, there remain two questions which ought not to be passed over in silence. One is, whether the races of Islanders with hypsistenocephalic skulls are any of them Papuans; the other is, whether this term, in its ordinary acceptation, is confined to those species of men, who are distinguished by having the hair not growing equally spread over the scalp, but, in tufts, with bare spots between. There are many distinct races, as distinct as species, which agree in presenting tufted hair. The Hottentots, the Bushmen, and the Oriental Negroes of the Pacific Islands, are as distinct from each other as any known races of man, yet they are all said to agree in having this curious tufted hair. The New Caledonians, the New Hebrideans, and the Feejee Islanders are Papuans, or agree in the practice of teasing out the hair into a kind of mop, some of them, as the natives of Aneiteum and Tana, wearing it in very slender ringlets, each of which is wound round at great pains, with a vegetable fibre, so that the whole is made to resemble a thrum mop, or one form of wig worn by the ancient Egyptians. There is no doubt that the natural structure and growth of the hair in some of these Islanders has suggested this strange fashion, and is especially adapted to the manipulation to which it is subjected. It is generally exceedingly fine and slender, and of that structure which Mr. P. A. Browne denominated *eccentrically elliptical*. The consequence of this form of its section is, that it naturally twists into cork-screw locks. These the natives avail themselves of, and wind round them a thin vegetable fibre, which is the fine rind of a plant, to within an inch of the extremity; by which means the separation of the locks is ensured, and their growth to an indefinite length. Others, also designated mop-headed, by means of long skewers and wooden combs with five or six long teeth, which they wear in their hair, tease out their crisp locks into an immense bush. It is true that no straight-haired people, *Leiotrici*, could follow either of these fashions. Those having any kind of crisp or woolly hair, which grows sufficiently freely, might adopt either custom, irrespective of its springing in tufts. And to judge from what we can learn concerning these Papuans, it appears that races with essentially different kinds of hair, do tease it out in this manner, and have been called Papuans. Neither Pickering nor Williams, Erskine, nor Seemann says that the Feejeeans have hair growing in tufts, yet they are among the most famous people for mop-heads, and for hair-dressing. M. de Rochas says nothing of tufted hair among the New Caledonians, who have the high narrow skulls. Like most other travellers, he is brief on the subject of hair, describing it most at length in his first account of New Caledonian Anthropology

(*Gazette Médicale*, 1860, p. 185), in these few words, "les cheveux noirs, laineux et crépus".* The Papuans of New Guinea are considered to have tufted hair, and the hair of the Negritos of the Philippine Islands has been said to grow in tufts.† Mr. Earle assures us that a slight mixture of the full-blooded Papuan with "the brown race", removes the peculiarity of tufted hair, which he attributes to the Papuans as a race. (*The Native Races of the Indian Archipelago*, p. 3.) Hence it may be concluded that the high-narrow skull is not essentially associated with the mop-headed races, and that it is equally independent

* A considerable number of specimens of the hair of New Caledonians, collected by Lieut. M. E. Didot of Tahiti, are now in the possession of the writer, and they seem to prove that, both in colour, texture, and mode of growth, there is much diversity. In general it may be said to be, in common parlance, black; but it varies from a deep brown or black, between Nos. 41 and 48 of Broca's tableau, and passes through many shades to a yellowish flaxen colour, much the same as No. 45 of Broca; this latter being the hair of a girl of three years of age, distinguished also as "peau jaune." It is mostly fine in texture, generally crisp, sometimes very crisp. Its character is that of short hair, never exhibiting the long flowing locks of Europeans. It is sometimes straight, sometimes a little flexuous, but more frequently bushy and in confused masses. A few specimens present the small, short, crisp, corkscrew tufts; but whether these grow separately or not there is no indication. The hair both of the head and the beard of "Jack", a New Caledonian chief of the Dumbia tribe, is black, Broca's No. 48. In the photograph of this head, which is preserved at Brest, politely transmitted by Dr. A. Le Roy de Méricourt, the hair is seen to be short, curly, and bushy, but not growing in separate tufts. The beautiful calotype portrait of "Williamu", a native of Aneiteum, New Hebrides, presented by the Rev. John Inglis, who brought him to this country, exhibits short, crisp, curly, thick, not discrete hair. Mr. Inglis designated him a Papuan. The specimen of his hair sent by this gentleman to the writer is fine, of brown colour, not very dark (like No. 41 of Broca's table), not very crisp, curly, so interlaced that it would be very difficult to comb out, but easily matted or teased out into a mop-head.

† The small skull of a Negrito from the island of Panay, sent the writer by Mr. Nicholas Loney, is remarkable for still retaining a good portion of its hair. This consists of a number of very short, small, grey curls scattered over the head not very thickly, but, as far as can be ascertained, not growing in tufts, not woolly, nor spirally twisted. A specimen of hair of a Negrito woman, also from Panay, is of a dark brown colour, deeper than No. 41 of Broca's tableau. It is fine, and growing freely, bushy, wavy in texture, and has pretty surely grown equally spread over the head. The fine photograph of a pure Aëta man taken at Manilla, sent by Mr. W. W. Wood of that city, exhibits a short, curly, crisp hair, much resembling the woolly locks of the Negro, but covering the whole head alike. That of a Negrito or Aëta woman is exactly of the same character. Black, woolly, crisp, and frizzled, are epithets applied to the hair of the Negritos by Mallat, Gironiere, and Earle; but I do not see that the two first describe it as being in separate tufts.

of the fact of the hair growing in tufts, or otherwise. Both positions may be said to receive confirmation by the crania of Papuans of New Guinea, and of Alfoursous in our collection. Neither the former, Nos. 1400, 1401, and 1402; nor the latter, Nos. 1403, 1404, and 1405, exhibit any tendency to the peculiar form here designated hypsi-stenocephalic. Hence, it may be scarcely needful to add, that some Papuan races have the high-narrow skull; and that the name Papuan is not confined solely to races with tufted hair; so that hypsi-stenocephalism has no connection either with Papuanism, or with tufted hair.

VI. In conclusion, it may be remarked that these high-narrow, or hypsi-stenocephalic skulls do not seem usually to be distinguishable for want of capacity. That some of them are even large may be affirmed safely, from the measurements of those named, viz., Nos. 812, 816, 817, from New Caledonia and the New Hebrides, which have an average internal capacity of 80 ounces avoirdupois of sand, equal to 96 cubic inches. These are exceptional in size, but 96 cubic inches is exactly the mean of the English skull, as deduced by Morton in his great table. Such an observation and the results of the measurements of the skulls of the ancient Britons described in the *Crania Britannica*, lead to the idea that some modification may be required to be made in the doctrine that aboriginal races are distinguished from Europeans by having lesser brains. It certainly would be impossible to pack the brain of these New Hebrideans in the skull of an European, because of the great difference of shape. It would not fit the cavity, and must, indeed, be reduced to a state of disorganisation, before it could be made to enter into this cavity, although of equal size. Have we not in this fact a key to the psychological peculiarities which discriminate the two races? Is it not the different conformation of brain, running through all its organisation, that lies at the basis of the great essential diversities of the two peoples; one of which is what is called civilisable, or ceaselessly and almost endlessly progressive; the other savage and stationary—if movable, moved only to destruction?

J. B. D.

THE TEUTO-CELTIC AND SLAVO-SARMATIAN RACES.*

AMONG the European races, two stand out more prominently than others; they are not only the dominant races of Europe—they are the dominant races of the world. The one occupies the east, and the other the west, of this highly gifted continent. They are both mixed races, and both are in contact with races comparatively pure. These are the Teuto-Celtic and Slavo-Sarmatian races. The former occupies France and Britain, Belgium, Switzerland, some portions of North-Western Italy, and South-Western Germany; the latter, the vast territory of European Russia.

From North-Western Germany and Scandinavia, the Teutonic peoples have, at various periods, encroached upon Gaul and Britain, infusing new and important elements into the original Celtic ones; and from Western Russia, Poland, Bohemia, Hungary, and the provinces now constituting European Turkey, the Slavonian race moved eastward and northward, and encroached upon the Sarmatian nations, imparting to them physical and mental qualities of a more elevated character than they originally possessed. Each of these new mixed races became more active and energetic than the primary races of which they were composed; the pure Slavon has been found unable to cope with the Slavo-Sarmatian, and the pure Teuton with the Teuto-Celt. Germany has repeatedly given way to France, and Poland and Livonia have succumbed to Muscovy. Wessex, with its large Celtic intermixture, rolled back the wave of conquest on the rest of the Anglo-Saxon heptarchy; the Teuto-Celts, under Charlemagne, vanquished the pure Saxons of the fatherland; the more mixed Norman-French subdued England and Sicily; and the still more mixed Anglo-Normans reduced Ireland and Wales under their sway, and defeated France with inferior numbers at Cressy and at Agincourt. Mixed races, it appears, when the original races have peculiar excellences, and do not differ too widely from one another, have a decided advantage over pure ones. Before the time of Mohammed, Arabia had received a large infusion of blood from Syria and other countries on her northern frontier, and the Arabs with whom he and his followers achieved so many conquests were a mixed race.

In the east of Europe, the Slavo-Sarmatian has been steadily and surely advancing to superior power and extending his bounds, by the subjugation of neighbouring nations. He has been bringing under

* Kinglake's *History of the Invasion of the Crimea*. 1864.

his sway peoples more barbarous than his own in the east, and peoples more civilised in the west. On the south he has been rapidly curtailing the domains of the Ottoman, and on the north-west appropriating the territory of the doughty Scandinavian. One of the sovereigns of Russia mightily consolidated her power, making her feared and respected in the eyes of Europe ; while he prevented the Swedish hero, Charles XII, from playing the part of a second Alexander. His successors followed surely and prosperously in his steps, and, in conjunction with Teutonic powers, partitioned the Slavonian Poland and destroyed her nationality. From the Sarmatian race the Russian has derived much animal energy—that energy which has so frequently been the cause of terror and alarm to superior and more intellectual races. On this animal energy, the high, intellectual qualities of the Slavonian have been engrafted, endowing the mixed people with activities and talents which are not yet, perhaps, appreciated by the western nations of Europe. Certain it is that the Slavo-Sarmatian has been growing and strengthening at such an amazing rate as almost to seem a mystery to the rest of the world. One characteristic of this people, which seldom belongs to barbarous nations, and not frequently to moderately civilised ones, is that they have been all along fully alive to their own deficiencies and anxious to amend them. To accomplish this end, they have availed themselves, without prejudice, of the service of foreigners ; in employing whom, they have shown, mostly on all occasions, much discretion in their choice. Among foreigners employed, Scotchmen seem to have met with special favour, and these have shown their national talent and forethought in the signal services rendered by them to the Russian empire.

The ambition of becoming the dominant race of the world is a passion which, since the days of Peter the Great, has inspired every Slavo-Sarmatian from the emperor to the peasant ; a passion which forms one bond of union among this people from Archangel to Odessa, and from the Baltic to Behring's Straits. Their religious superstitions embrace a mixture of gross Turanian rites and intellectual Slavonian mysticism. In the west their influence is injurious, as there they come in contact with superior races ; their proper mission is towards Central Asia, where their peculiar mental and physical qualities fit them for advancing civilisation and improvement. For upwards of a century now their subtle diplomacy has been gradually augmenting their authority in Western Europe ; but since the time that Napoleon I invaded their territory and encountered such signal disasters, their ambitious tendencies have been watched with suspicion, and, accordingly, it has been the policy of other European nations to guard against their encroachments. All along, in their

wonderful career, Constantinople has been looked to with eagerness for a Southern capital, where, on the ruins of the Ottoman Sultanate, they have fondly hoped to establish the seat of a new empire of the world rivalling the Greek and Roman, and from which they anticipated to dictate terms to all nations and peoples, and to send their ships through the Mediterranean and the Straits of Gibraltar to lord over the western ocean, and there to form the middle of a naval wall of ships of war, which was to encircle the world from the Baltic through the Atlantic, Indian, and Pacific Oceans to the sea of Kamschatka. To the Czar of Russia at the head of the Slavo-Sarmatian people, France and Britain, constituting the two mighty branches of the Teuto-Celtic race, were to strike sail. Europe was to be ruled from the east; while French and English were to bow to the Russ at Stamboul.

Such, no doubt, were dreams in which thousands of Russians indulged, and a pretence was only required for engaging in war with the Turk in order to strip him for ever of his European dominions; while at no very remote future period it might be convenient to follow him to Asia and add all his possessions there to the Muscovite empire. These ambitious aspirations led to a war which brought out in bold relief the peculiar characteristics of this people, and those of the most active and energetic of all races, the Teuto-Celts of Western Europe.

That there is a national difference between the British and French is sufficiently certain, but this is a difference of degree rather than of kind. Both nations have the principal element, which is Celtic, in common. The romance of the extirpation of the ancient Britons by the Saxons is daily losing its authority as history. The bulk of the English people is Celt crossed with Saxon and other Teutonic invaders, who became the conquerors, not the extirpators, of the natives. For centuries the English looked upon the Saxon invaders of Britain as their principal ancestors, exactly as the French did upon the Franks as theirs. When a people are conquered, the conquerors become their aristocracy, and all are proud of claiming descent from them. The conquered are for a time despised, and, in consequence, are ready, when occasion offers, to claim origin from the conquerors. Franks and Goths seized upon Gaul exactly as Saxons, Angles, Jutes and Frisians seized upon Britain. As the Franks accomplished their conquest more quickly and had one king in common, France became a united nation sooner than England. The founding of the French monarchy by Clovis put an end to any further Teutonic invasions in Gaul, while the conquering Franks adopted the Romanised language of the conquered people. Here then was formed a uniform Teuto-Celtic nation with the Celtic element largely preponderating. The

case was different in Britain. The Saxon invaders were not so powerful or united as the Franks ; and in discipline and military tactics the former seem to have been much inferior to the latter. They had to cross the seas, and this circumstance rendered it more difficult for them to come in large force. Accordingly they arrived in Britain at successive periods under various leaders, and were divided among themselves, on account of which they warred with one another as well as with the natives ; while with the latter they frequently entered into alliances against one another. They acquired footing in the country very slowly, several centuries elapsing before Britain was entirely conquered by them, and Wales remained to be conquered by the Anglo-Normans. In this manner was the Teuto-Celtic race of England formed, more Teutonic blood being introduced in consequence of successive invasions than in France, and from the direction of the invasions it was more unequally distributed, Teutonic blood predominating in the east, and Celtic in the west.

A more uniform diffusion of Teutonic blood was effected in the British Isles by the invasions of the Scandinavians. The Danes seized upon the east of England, and finally conquered the country ; while the Norwegians descended on the west of Scotland and on the north and east of Ireland, wresting the Hebrides and the adjacent coast from the crown of Scotland and founding the kingdom of the Ostmen in Leinster. A fresh supply of Teutonic blood was infused into that of the French by the Norman invasion. In Normandy a new mixed race was produced from Normans and Franco-Gauls, which became one of the most remarkable the world had ever beheld, and which extended itself into England and Italy, conquering the whole of the former country and a large portion of the latter. In this manner were the mixed races of France and Britain formed, and from the facts adduced it may be readily perceived that the two races are identical ; the Frenchman having more of the Celtic element than the Englishman and Scottish Lowlander, but not more than a large portion of Scottish Highlanders, Welsh, and Irish.

The Norman conquest of England helped still further to assimilate Englishmen and Frenchmen to one another in temperament and character ; so that notwithstanding the numerous wars which have taken place between them, and the national antipathies bred by these, the French and English have more similarity to one another, and more latent sympathy with one another, than any other two nations in Europe. Small differences often create greater animosities than large ones ; sects closely allied to one another in opinion fight with more rancour than those that are separated by a wider gulf in belief ; and so it has been with the English and French. "The English and

French", observes Schlegel in his *Philosophy of Life and Language*, "are very much the same at bottom", and in reality they are so. Their different geographical position has thrown the intellect and activity of the two branches of the Teuto-Celts into different directions. France, ever since she became a nation, has exercised extraordinary influence on land, and her immense activity and brilliant intellect have considerably swayed the other continental nations; her tongue has become the universal language of Europe, and her literature a principal element in the intellectual life of the enlightened world. England's greatness has, on the contrary, rendered itself more conspicuous on the ocean. There, for centuries, she has reigned triumphant; and although Teutons are allowed to be better seamen than Celts, yet the Teuto-Celt has far excelled the pure Teuton as an ocean warrior. The phlegmatic obstinate persistence of the Dutch sailor has seldom or never been capable of competing with the vehement ardour of the British tar, which "rivals lightning's flash in ruin and in speed". Even the stalwart, resolute Dane, the pure descendant of the redoubtable sea-kings, had, after an obstinate and glorious resistance, to succumb to the fiery impetuous Teuto-Celtic Nelson at the head of his enthusiastic and chivalrous British seamen. Her insular situation and her well-tempered finely mixed Teuto-Celtic race have made Britain the supreme empress of the ocean; while, on the other hand, her position in continental Europe, along with her Teuto-Celtic blood, has made France the æsthetic and martial queen of all the other continental European nations.

A Teuto-Celtic race extends from the northern shores of the Shetland Isles to the Gulf of Lyons; from Bavaria and Switzerland to the Scilly Isles and the coast of Connaught. To develop this race to its present excellence, centuries of invasion, war, and conquest, were required. The firmness of the rock was to be united to the impetuous lightning flash; the fiery vehemence of the Celt was to be blended with the relentless sternness of the Teuton; the ideal intellect was to be combined with the intellect of fact; subtle disquisition and sparkling wit were to be associated with cool deliberation and sagacious humour; huge energy was to be coupled with matchless adroitness; centralising sociality was to be moderated by repelling individuality; and all these qualities in the course of time, after long-continued and terrible wars, numerous invasions, and several conquests, had done their work, have been intimately amalgamated into a most wonderful whole; so that a mixed race has at last been produced which is, for ages, to rule the destinies of the universe. Hereafter France and England must maintain an inseparable alliance; the interests of the world; the future prosperity of humanity; their own self-defence demand that it should be so; a

truth which the present French Emperor seems to perceive more clearly than most men.

The Crimean war, with all its evils and disasters, has had this very great advantage, that it has much helped to remove the old enmities between French and English, to lay the foundation of a permanent friendship between them, to bring out their common sympathies and racial affinities, and to convince them that their mutual interests require that they should continue in peace. Never before since the time of the crusades did two peoples march together to "glory or the grave" with so much reciprocal esteem and admiration; never since that chivalrous age were they inspired with a higher opinion of the cause in which they were engaged. They felt convinced that they had espoused the cause of universal liberty in opposition to that of relentless tyranny; but, independently of this, they instinctively felt that they were marching to defend the superiority which they had themselves acquired and which they had possessed for many centuries. The French and English being the dominant nations of the world, it was to be decided in the Crimea, around the walls of Sebastopol, whether the Teuto-Celts or Slavo-Sarmatians were to hold precedence among the races of men. Fierce battles were fought, and brilliant victories gained by Teuto-Celtic soldiers. The massive animal force, superstitious devotion, and rigid endurance of the great eastern European race, were not found a match for the nervous activity, the enthusiastic, daring, and fiery resolution of the occidental. The Crimean war has clearly decided the warlike superiority of the Teuto-Celtic race over the Slavo-Sarmatian; and as long as the two great branches of the former, French and English, continue on amicable terms, Russia must direct her ambition for sovereignty to Mongolian territory, and turn her back on the western regions of Europe. The Teuto-Celt has crushed the ambitious aspiration of the Slavo-Sarmatian for universal empire on the ruins of Sebastopol.

There could not be a more valuable contribution to the science of man than a good history of this war, and, accordingly, two very able volumes on the subject have appeared by Mr. A. W. Kinglake. History is one of the most important departments of human knowledge, and a department which is of indispensable service in the study of human nature. Little can be done in anthropology without its aid; for it is from human action on a Greek scale, when large masses of human beings are put in operation, that we can study human character in all its breadth. Man can hardly be understood when considered as isolated from his fellow; it is in groups in social relations with each other, both amicable and inimical, that human passions, feelings, instincts, and intellectual aptitudes, are developed and manifested. War, from its

terrible nature and serious consequences, brings human passions, virtues, vices, and abilities more into operation than any other movement; and on this account it must always continue to be one of the principal themes of the historian. History holds a middle place between art and science. Like art, it delineates and portrays men and actions so as to present the reader with a life-like view of things, and impart to him a concrete knowledge of men and women, as real and living, actuated by motives, prejudices, and impulses; like science, it analyses and digests facts in order to expound the general principle on which living action depends. When history is written purely in reference to artistic effect, it leaves the student ignorant of the abstract principles which form the groundwork of the living actions which he contemplates; and when written purely as science, it resembles anatomical dissection, which describes the various parts of a dead body, but conveys no idea of that body when influenced and put in action by thought, reason, and feeling. In Mr. Kinglake's book many of the qualities of a superior historian are to be traced; his descriptions are vivid and picturesque; his portraits of character well-conceived and vigorously delineated; and his penetration into the characters of nations and individuals keen and powerful; while his style, dignified and eloquent, has a magnificent flow admirably adapted to the lofty theme on which he has undertaken to write. His long disquisitions on diplomatic matters are, however, tedious and over-laboured; and on these points few will admit that he is at all happy in arriving at correct conclusions. He is evidently too prejudiced against the French Emperor to estimate his character with impartiality; and the biassed view that he takes of this extraordinary man, is a great blemish in a work possessed of such rare and superior merits.

Men rise up at certain periods whose very natures are, some way or other, involved in mystery. They are the glory, jest, and riddle of the world; but the jest and riddle because they are not understood. It is difficult to prevent the history of those men from being involved in mysticism. They afford a fertile theme to those who love the marvellous, and are a sure stumbling block to the sober mind that cannot distinguish the line of demarcation between the common-place and the extraordinary. Like rivers, the sources of which have not been discovered,—like narrow, tortuous caves which have never been explored,—like objects seen by moonlight, when the sky is mostly overcast with clouds; some men appear vague and undefined to the mind's eye. Such men are usually an insoluble problem in their own age; they are men who ascend to a conspicuous position, but whose mode of ascent cannot be very well ascertained;—men who exercise an influence of which they are not themselves entirely conscious, and who owe that

influence to something in their nature which bears upon momentous events ;—to this class of men belongs Louis Napoleon. Along with his great talents there is one thing especially which has materially helped his success, and that is his being pre-eminently a Frenchman, or Gaul, possessed of all the social sympathies, the mental aptitudes, and some of the weaknesses which belong to the Gallic races. His uncle had led the French in many battles, and had added to the glory of the nation by winning so many signal victories ; and all nations of Celtic origin are excessively fond of every kind of glory—military, scientific, or literary. The names of those who have added to the renown of their country, Celts never forget. The memory of Napoleon Bonaparte was, therefore, dear to France, and the sad termination of his illustrious career rendered it still dearer to them, enhanced his good qualities in their estimation, and effaced the recollection of his bad ones from their minds. But Napoleon I was not a Frenchman, and had nothing of the Celt in him. It is seldom that a man of one race can thoroughly appreciate men of another, however expansive the intellect, and however great the genius ; and, accordingly, Napoleon I never fully appreciated the French character. “The French have but one sentiment, vanity,” says he ;—a proof how little he could enter, notwithstanding his great abilities, into Celtic sentiments. To this may his downfall be chiefly ascribed. Had he fully understood Celtic sentiments there are strong reasons for believing that he had never been an exile in Elba, or a prisoner in St. Helena. His nephew, one himself of the race that he governs, thoroughly fathoms the deep sympathies, and fully appreciates the social tendencies of the Celts. Hence the wonderful progress of France, so obvious to the whole world, which has taken place during the period he has swayed her destinies.

The explanation given of the *coup d'état* by Mr. Kinglake seems to be dictated by strong prejudice and strikes an unbiassed reader as being extremely partial. The peculiar state of France at the time is not, perhaps, yet properly understood. In tumult and turmoil cruelties are committed, but how this happens is a question to which a satisfactory reply is not easily given. Of this *coup d'état* we have, as yet, but very contradictory accounts and explanations ; and, certainly, if it did prevent a massacre upon as large a scale as that of 1849, the forethought of the author of it cannot but be admired.

The view that Mr. Kinglake takes of Louis Napoleon's courage is by no means in keeping with this author's usual sagacity. There is a rough, coarse personal courage, or rather rashness, which operates without considering consequences—a kind of courage which is in a great measure the result of strong health, exuberant animal spirits,

and immense self-confidence. This species of courage is, doubtless, a useful ingredient in masses,—it is, in reality, the courage which belongs to the herd of some races,—to the Teutons in Europe and to the Tartars in Asia ;—but it is not the courage of the Celtic race,—it is not the courage of the Celtic man. The courage of the Celt is founded on imagination and sentiment ;—it depends upon an idea and feeling of perfection,—it is moved and actuated by hope and fear ;—it is fed by the nervous system rather than by the vital organs, and is entirely regulated by the consideration of consequence. It is among Teutons that we meet with *Berserkers*,—men who will, under every condition, fight, regardless of consequences. More than most other races, they stand adversity without changing colour, and maintain their spirits and *sang froid* under the greatest reverses. The ancient Norsemen defied wounds and torture, and died without shedding a tear in their agony. Ragnar Lodbrog winced not when stung to death by serpents. This physical endurance—this defiance of fate, is principally owing to an extraordinary development of heart, stomach, and lungs, which this race possesses, and which makes those belonging to it fonder of feasting and revelling than any other people in the world. In the Norse tales, hell is defined as “a place where meat is scarce”. This animal courage does not belong to Louis Napoleon, or to the Celtic race which predominates in him. He is principally of a race that can bear hunger better than torture or reverses ; but the Teuton can bear the most of evils better than hunger. In all those cases in which Mr. Kinglake charges Louis Napoleon with cowardice, the reader who calmly considers the circumstances, will find that his conduct was regulated by prudence and a clear foresight of results ; and as for any alteration in his expression during those critical moments to which this author refers, it is perfectly evident that it proceeded from a sensitive nervous temperament and not from any deficiency of courage, a quality which has always appeared so conspicuous in him when it was to serve a purpose. It is, therefore, much to be regretted that an author who has so truthfully and vividly sketched so many distinguished characters, should be so strongly prejudiced against the Emperor of the French as entirely to misunderstand him.

Overlooking these faults, Mr. Kinglake's volumes may be read with much profit by the anthropologist who is desirous of becoming thoroughly acquainted with the racial characteristics of British, French, and Russians. The following sketch of Lord Palmerston gives some idea of his power in portraying individual character :—

“To those who know anything of Lord Palmerston's intellectual power, of his boldness, his vast and concentrated energy, his instinct for understanding the collective mind of a body of men and of a whole

nation, and, above all, his firm, robust will ; nay, even to those who only know of his daring achievements—achievements half peaceful, half warlike, half righteous, half violent in many lands and on many a sea—the notion of causing him to be subordinated to Lord Aberdeen in Foreign Affairs seems hardly more sound than a scheme providing that the greater shall be contained in the less. Statesmen on the Continent would easily understand this, for they had lived much under the weight of his strenuous nature ; but at that time he had been much called upon to apply his energies to the domestic affairs of England. Besides, he had been more seen in his own country than abroad, and for that very reason he was less known, because there was much upon the mere outside which tended to mask his real nature. His partly Celtic blood, and, perhaps, too, in early life, his boyish consciousness of power, had given him a certain elation of manner and bearing which kept him for a long time out of the good graces of the more fastidious part of the English world. The defect was toned down by age, for it lay upon the surface only, and in his inner nature there was nothing vulgar nor unduly pretending. Still, the defect made people slow—made them take forty years—to recognise the full measure of his intellectual strength. Moreover the English had so imperfect a knowledge of the stress which he had been long putting upon foreign governments, that the mere outward signs which he gave to his countrymen at home—his frank speech, his offhand manner, his ready banter, his kind, joyous, beaming eyes—were enough to prevent them from accustoming themselves to look upon him as a man of stern purpose. Upon the whole, notwithstanding his European fame, it was easy for him at this time to escape grave attention in England.

“He was not a man who would come to a subject with which he was dealing for the first time with any great store of preconceived opinions, but he wrote so strenuously—he always, they say, wrote standing—and was apt to be so much struck with the cogency of his own arguments, that by the mere process of framing dispatches, he wrought himself into strong convictions, or rather, perhaps, into strong resolves ; and he clung to these with such a lasting tenacity, that if he had been a solemn austere personage, the world would have accused him of pedantry. Like most gifted men who evolve their thoughts with a pen, he was very clear, very accurate. Of every subject which he handled gravely he had a tight iron grasp. Without being inflexible, his will, it has been already said, was powerful, and it swung with a great momentum in one direction until, for some good and sound reason, it turned and swung in another. He pursued one object at a time without being distracted by other game. All that was fanciful, or for any reason unpractical, all that was the least bit too high for him or the least bit too deep for him, all that lay, though only by a little, beyond the immediate future with which he was dealing, he utterly drove from out of his mind ; and his energies, condensed for the time upon some object to which they could be applied with effect, were brought to bear upon it with all their full volume and power.”

WRIGHT ON BRONZE WEAPONS.

At the recent meeting of the British Association at Birmingham, Mr. Wright read a paper entitled "On the True Assignment of the Bronze Weapons, supposed to indicate a Bronze Age in Western and Northern Europe." The paper is a very fair attack on the classification of the Northern antiquaries respecting the stone, bronze, and iron ages. The subject is one of great interest and importance; and this has induced us to give some copious extracts from this communication. Mr. Wright, at the end of his paper, appears to us to have gone somewhat out of his way to attack the views recently promulgated by the illustrious anthropologist M. Nilsson, respecting the supposed colonisation of this country by the Phœnicians, and goes so far as to say it is "unworthy of the serious consideration of the antiquary." We believe M. Nilsson's theory is eminently worthy of the most serious attention of the anthropologist; and we have consequently devoted a space to show what his views really are.

Mr. Wright commenced by observing:—

"Within a few years there has come into existence, I will not say a new science, but certainly a new and very extraordinary field for scientific inquiry. Not long ago, antiquaries limited their knowledge of the remains of human industry in this part of the world to a few generations, at most, before the date when we are made acquainted with its inhabitants by the Roman historians, and everybody was satisfied with the biblical account, that mankind had existed upon this earth somewhat more than six thousand years. It is but recently that we were all surprised by the announcement that flint implements, which had evidently been formed by man's hand, had been found in the geological formation known by the name of drift. As soon as this discovery became an accepted fact, and more general attention was called to the subject, it was discovered that these flint implements, instead of being rare (as we might perhaps have expected), were, in many parts where the drift was examined, so abundant as to imply the evidence of a considerable population at a period of course preceding the formation of the drift itself. These implements present a great uniformity in shape, and to some degree in size,—at all events, there are only two or three

varieties, and it is remarkable that, while the fossil bones of various animals are found in the same drift, there has been as yet no authentic discovery of human bones; yet there appears to be no room for doubt that these implements are really the work of man. Of course, according to the opinions of geologists on the age of the drift, this discovery would carry back the existence of man on earth to an immense distance beyond the biblical date, and it leaves us for speculation and theory a period of far greater extent than the whole historical period. The question of the Antiquity of Man became thus an attractive, and even an exciting study. It happened that the northern—the Scandinavian—antiquaries, whose peculiar fault is a spirit of too hasty generalising, had already started an ingenious theory in relation to these pre-historic times, according to which these were divided into three periods or ages, distinguished by the names of stone age, bronze age, and iron age. During the first of these periods, metal was unknown to man, and stone was the best material he had for the manufacture of weapons or of other implements for cutting or hammering; the second was characterised by the use of bronze as the only metal; in the third, bronze had been superseded for these purposes by iron. This system of periods was eagerly embraced by the new school of pre-historic antiquaries, who have even refined upon it and divided at least the first two periods into subdivisions.

“It is this dark and mysterious pre-historic period which has furnished the subject treated in the handsome volume recently published by my friend Sir John Lubbock, which treats successively on the system of periods or ages just mentioned, on the tumuli of the pre-historic times, on the lake habitations, shell mounds, and caves, on the more general subject of the Antiquity of Man himself, and on the manners of modern savages, which the author employs very judiciously to illustrate those of the savages of pre-historic ages, for absolute savages at all times bear a certain resemblance to one another. I will only add, as to the book itself, that it is a well written and well arranged work, characterised equally by purity of language and by its singular clearness and perspicuity, while it presents a view of the whole subject, which surprises us by its comprehensiveness, without wearying us with what too often constitutes comprehensiveness, a close dry mass of enumerations of facts. My intention on the present occasion is to take Sir John Lubbock’s work only from one point of view—so far as its talented author treats of the system of periods—a system which, it is tolerably well known that I, in common with antiquaries of some eminence in their science, reject altogether, and look upon as a mere delusion, and some parts of the first chapters of my friend’s book are aimed at me; that is, they are directed against opinions which I have expressed and

which are here rightly put into my mouth, and I am glad of the opportunity of explaining my reasons rather more fully. It will be understood by everybody that whatever strictures I have to make are directed, not against Sir John Lubbock's writings, but against the opinions on the school of pre-historic archæologists which he has adopted, and which are here stated more fairly and distinctly than in any other work with which I am acquainted.

"I am by no means inclined to impugn hastily the general conclusions to which men of science seem now arriving upon the great question of the antiquity of man—it is a subject in regard to which I look forward with anxious interest to the increase of our knowledge, certain that the ultimate result must be truth. *Magna est veritas, et prævalebit.* But I complain of the treatment which the science of archæology has hitherto received at their hands. There was a cry some time ago—and nobody joined in it more heartily than myself—that a close alliance should exist between archæology and geology; but this was to have been a fair and equal alliance, in which the geologist should accept the conclusions of archæology on the same footing as the archæologist is expected to receive the opinions of the geologist. Instead of this, the geologist seems to have considered that the science he had thus to give his hand to is a vague and uncertain one,—he has created a sort of archæology of his own, made in the first place to suit his own theories, and he takes only the advice of those who will give him an opinion which is in accordance with a foregone conclusion, and this is often quite contrary to the teachings of archæological science. Archæology, as a science, has now reached too high a position to be treated with so little respect. But let us go on to the more especial subject now before me.

"Sir John Lubbock alleges that 'Mr. Wright sees nothing in Great Britain which can be referred to ante-Roman times' (p. 35); and upon this he remarks (p. 36), 'But if we are to refer not only the bronze implements, but also those of stone, to the Roman period, what implements, we may ask, does Mr. Wright suppose were used by the ancient Britons before the arrival of Cæsar? It would be more reasonable to deny the existence of ancient Britons at once, than thus to deprive them, as it were, of all means of obtaining subsistence.' What I have said on this subject must have been strangely misunderstood, or I may have explained myself badly; for I am entirely unconscious of having ever uttered an opinion which could bear the interpretation here given to it. I have said, and I still say, that I do not believe we have many—perhaps any—monuments of importance much older than the Roman period, and that such ancient remains as are supposed to be older than the Roman period bear no characteristics

which would enable us to ascribe them to any particular date. I have never pretended to deprive the Britons of the use of stone,—it would not be in my power; but I say that stone was also in use for the same purposes in Roman and Saxon times, and that the mere presence of a stone implement does not prove that the deposit was British any more than Roman. Stone, of various kinds, is a very ready and convenient material for purposes such as the stone implements of antiquity evidently served, and it is found in use in Western Europe even in the middle ages. Stone implements have often been found on Roman sites in this island; they have been found in Saxon graves in Kent, and I have myself found flint flakes, evidently placed there by the hand of man, in Saxon graves in the Isle of Wight, perfectly resembling those of which the geologists have talked so much of late. The Abbé Cochet found similar flint flakes in Roman graves in Normandy, so arranged as to leave no doubt that they were placed there intentionally.

“Sir John, indeed, acknowledges that implements in stone were in use in Roman times, but it was not so much a difference between the poor and the rich, as he puts it (the structure of society was altogether different from that of modern times), as between different localities. It would be very wrong to suppose that the social condition of Britain under the Romans was uniform in cultivation and condition throughout the province. There were no doubt “savages” in wild and retired parts of the island, as there have been in much more recent times, and communication between distant localities, except on the lines of the great roads, was slow and precarious. People must thus have been frequently exposed to the inconvenience of falling short of metals, which, moreover, were probably always expensive, and then they would be obliged to have recourse to stones, the use of which would thus be habitual. People, under this state of society, could not go to obtain their flint implements at distant manufactories, but must either have made them individually for themselves, or, at the most, there may have been a man in each village or rural district who was more skilful in making them than his neighbours, and supplied them to those who were able to purchase. In this manner there must have been, throughout the land, at the same time, a vast variety in the form and style of flint implements, according to local taste or individual caprice, so that it would be absurd to consider difference of form and character as a proof of difference of date. In primitive times diversity, and not uniformity, was usually the rule, and sometimes this difference of form and design became almost a family distinction. Among the Anglo-Saxons, long after they had risen above the character of savages, the different tribes were distinguished by different forms

of personal ornaments, and we know that in much later times the clans of the Scottish highlanders have been similarly distinguished by the patterns of their plaids.

"But enough of stone for the present—let us proceed to bronze, which forms the grand corner-stone of the edifice of this system of periods. We may, perhaps, consider as the most important of these objects of bronze the swords, because they present a greater number of peculiarities of form than any of the other classes, and the circumstances connected with their discoveries seem at a first glance of the subject to suggest more difficulty in identifying them with the Romans; I shall, therefore, take them as the special object of my investigation, but the arguments I shall use with regard to them apply with still more force to the other objects made of the same metal. . . .

"Sir John asserts that 'bronze weapons are *never found associated* with coins, pottery, or other relics of Roman origin;' he then proceeds to quote a statement of mine to the effect that on all the sites of ruined Roman towns these other objects are found scattered about rather abundantly; and he adds somewhat triumphantly, 'We may assume, then, on the authority of Mr. Wright himself, that, if all these bronze arms were really of Roman origin, many of them would have been found from time to time in conjunction with other Roman remains.' I can admit of no such assumption as arising from the facts I have stated; and I am sorry to be obliged to say that this remark only shows that my friend, in common with the advocates of this system of periods generally, is but imperfectly acquainted with the archaeological conditions of the question. The reason we do not find bronze swords under the circumstances which he insists upon, is a very simple one, easily explained, and applies to iron swords equally with bronze swords. The Romans did not bury their weapons with the dead, and they took great care of them, especially of the sword, while alive. Even in the last struggles of the empire, when the Romans must sometimes have been obliged to leave their weapons behind them, the barbarians, among whom we know that a sword was an object of inestimable value, took very good care to carry them away. The consequence of this is that a Roman sword in iron is one of the rarest objects in antiquarian discovery. I remember, within my own observation, hardly a single instance of one having been found in Roman Britain, and not above two swords supposed to have been found here, and it is my impression that the bronze handle of one of the latter presented a considerable resemblance, in its style of ornament, to those of some of the bronze swords found in Scandinavia. During the whole of our excavations at Wroxeter, which have filled a considerable museum with articles of Roman fabrication, we

have never met with the smallest fragment of a Roman sword, nor do I remember a single instance of such a find on any site of a Roman town or villa in this island. In one or two cases in the west of England, as in the very remarkable discoveries at Hod Hill, in Dorsetshire, bundles of unfinished iron blades, which looked like swords, have been discovered under circumstances which appeared to me to show that they had been government stores on their way to some imperial manufactory where the finish was to be given to them; other antiquaries thought they were not swords at all, and I think they may be right; but it is a very remarkable circumstance that among the Roman antiquities found at Hod Hill there was one undoubted iron sword-blade, and this was in every respect *an exact copy* of one of the swords in bronze, of which we are now speaking, a proof beyond doubt that the latter were at that time well known. This Roman sword-blade possesses the characteristic leaf-shape, with the ribs, and the holes for the rivets, by which the handle was fixed on. The fact of no Roman swords in iron being found, would be rather in favour of the bronze swords being Roman. Again, Sir John Lubbock gives as one of his arguments against me the fact that the bronze and iron swords and other implements are not found mixed together in the same locality. It seems to me that this is exactly what we might expect, especially in the case of the swords. These, as I have just observed, were valuable articles, and were probably, at least in the provinces, in possession of few individuals, except the military. The inhabitants of a lacustrine village, for instance, were not likely to be in possession of a sword, unless they had stolen it, and whence would they steal it? From some soldier belonging to the nearest military post. I am sure that Sir John Lubbock will allow that it has never been the custom to arm any corps of troops with a variety of weapons—if their swords were bronze, they were all bronze, if iron, all iron. The discovery, therefore, of weapons in any particular place would only necessarily show that it was the weapon with which the detachment of Roman troops stationed in that neighbourhood—or, at least, nearest to it—were armed. But I think that it is stated rather rashly that bronze swords are not found with iron swords; for in the very rare instances of the discovery of Roman iron swords found in Britain, in, I believe, almost a majority of cases they have been found associated with bronze swords. A few years ago a Roman sword in a bronze scabbard, the blade appearing from the rust to be of iron, was dredged up from the Thames, along with a very fine specimen of the well-known bronze leaf-shaped sword, and a large stone celt, all which are now in the museum of Lord Lonsborough, at Grimston Park, in Yorkshire; and a similar iron sword in a bronze scabbard was

found together with a bronze sword in the river below Lincoln, at a spot where a bronze circular shield had previously been found. The discovery, in one or two instances, of a mass of bronze implements, with no mixture of iron, leads only to the conclusion that they had formed the stock-in-trade of some dealer in bronze implements, or that they had been a consignment of such articles lost on the way. But of this I shall say more.

"I must, however, state generally that the archæological fact is that, instead of our *not* finding the bronze swords in juxtaposition with Roman remains, in every case where they have been found in Britain or Gaul, where the details of the discovery have been carefully observed, it has occurred under circumstances which lead to the strongest presumption of their being Roman. A bronze sword, of the usual leaf-shaped type, is stated to have been found at the Roman station of Ardoch in Scotland, on the wall of Antoninus, and there appears no reason to doubt the accuracy of the statement. But, to come further south, it is well known to the archæologist that the great treasury of the antiquities of Roman London—and of mediæval London also—is the mud of the river Thames, and within the limits of the town, I believe that no object has been found that could claim an earlier date than Roman. This is just the place where objects of all kinds would be deposited by accidents, such as boats upsetting in the transit, people falling in and being drowned, and the dropping into the water of objects of various kinds which would sink by their weight. Now swords have been found in the Thames at London, and I should underrate the number in saying a few, but they were nearly all of bronze, and leaf-shaped in form, which might almost be taken to show that this bronze sword was most in fashion among the Romans in London. Certain it is, that my friend Mr. Roach Smith, who has examined these Roman antiquities of London more extensively and deeply than anybody else, and whom I have no hesitation in saying that I regard as the first authority on the antiquities of the Roman period in England or even on the continent, is convinced, equally with me, that the bronze swords are of Roman manufacture or origin. Discoveries of the axes, chisels, and other implements of bronze, have been much more frequent, and in positions which speak still more strongly of their Roman character. Thomas Hearne, who first called attention to these objects more than a century ago, took it for granted that they were Roman, but he unfortunately gave it as his opinion that they represented the Roman *celtis* (a technical word for a sort of chisel), and, in the low ebb at which archæological knowledge has stood from his time down to the present generation, antiquaries seem to have blindly fallen into the mistake that the name *celt* (*celtis*) was

equivalent to *Celtic*, and that it meant that they belonged to the ancient Britons. In this blunder solely, I believe, originated the notion that these 'celts' are not Roman.

"Let us now cross the Channel to our neighbours, and see what is the case in Gaul. France has undoubtedly produced by far the ablest, the soundest, and the most judicious antiquaries of modern times; and I believe that they have all regarded the bronze swords, equally with the other bronze implements, as Roman. I will quote the authority of Monsieur de Caumont, to which I am sure that nobody who knows anything of archæology will object. In his *Cours d'Antiquités Monumentales*, De Caumont, in speaking of these so-called 'celts', says, 'But we find also very frequently these bronze axes in places covered with Roman ruins; I have acquired the certainty of this by my own observations and by the information I have collected in my travels.' Again, the same distinguished scholar, in speaking of the bronze swords, after noticing the opinion of a previous writer who thought that the Gauls had derived the use of these swords from the Greeks, goes on to say, 'At all events, I must not conceal from you the fact that the bronze swords have been found sometimes along with objects of Roman manufacture, which would seem to announce a different origin.'

"I will go back a little farther among the antiquaries of France to produce not only opinions, but facts, such as I think ought to set the whole question at rest. At the beginning of the present century flourished the able antiquary Antoine Mongez, one of the most celebrated members of the Institute of France, a man distinguished for his science and learning, and for his judicious use of them. On the 16th of Prairial, an 9 (for we are still in the days of the republic), according to our reckoning the 5th of June 1801, the "citoyen" Mongez read at the Institute, before what was then called the Class of Literature and Fine Arts, but which is now represented by the Académie des Inscriptions et Belles Lettres, a memoir on an ancient bronze sword, which had been found with the skeleton of a man and horse, in a turbary (*tourbière*) near Corbie, at Hailly, in the valley of the Albert, a tributary of the Somme. In this memoir, which is published in the volume of the papers read before the class, this sword is described, and figured in an engraving; it is entirely of bronze, blade and handle. The object of Mongez was chiefly to analyse the bronze of which this sword was made; but he also enters into the question of what manufacture it might be, and, after careful discussion, he arrives at the conclusion that these bronze swords were all Roman. On the 8th Frimaire, an 10 of the Republic, or the 29th of November 1801, in

our reckoning, M. Mongez read another paper on three bronze swords which had been recently found near Abbeville, and which resembled the other so closely that he thought it unnecessary to have them engraved. Mongez re-considered the question, and again pronounced them Roman—*je les crois Romaines*.

“After Mongez had read his *Memoires* on the bronze swords before the Institute, his opinion received a singularly remarkable confirmation in a more exact and complete account of the circumstances of the discoveries, which he obtained from a very zealous and able antiquary of Abbeville, M. Traullé. The bronze sword, as just stated, was found in the turbary at Heilly along with the skeletons of a man and a horse, and by the sword were four brass coins of the Emperor Caracalla, who, as is well known, reigned from A.D. 211 to 217. This sword, therefore, was that of a Roman cavalry soldier, not older, and perhaps a little later, than this reign, who had sunk in the bog to which the turbary had succeeded. The history of two of the other swords, found in a turbary at Pequigny, near Abbeville, was, if anything, still more curious. A large boat was found, which had evidently sunk, and in it were several skeletons. One of these had on his head a bronze casque, or helmet, accompanied with the remains of the other accoutrements of a soldier. The bronze sword lay by his side, and with it some Roman coins, some of which, if not all, were middle brass of the Emperor Maxentius, who reigned from 306 to 312. Another similar sword was found in the turbary outside the boat, which would appear to have been sunk in a skirmish after some of its crew had been killed in it. We learn here that Roman soldiers, in the wars and troubles which agitated Gaul in the third and fourth centuries after Christ, were armed with these bronze swords which some have so ingeniously supposed to have been brought into this island by the Phœnicians, some seventeen or eighteen hundred years before the Christian era. From the time of Mongez, the French antiquaries have regarded the bronze swords as Roman.

“I have thus crept on from one little, though significant, fact to another, until it seems to me tolerably clear that they all point to one conclusion, that the bronze swords found so often in different parts of western and northern Europe are Roman; that is, that they were all either of Roman manufacture, or, at the least, copied from Roman models. I consider that this evidence is sufficiently strong, but still it will be worthy of inquiry, whether it be confirmed by pictorial delineations on Roman monuments. I have no doubt that with a little labour we might bring together a mass of corroborative evidence of this description which would be quite irresistible, but I regret to say that pressing engagements of a different character will not at present allow

me to undertake that labour myself to its full extent. I think, however, that I can produce a few very satisfactory samples of it—and I will only take them in two classes of such monuments.

“First, as to the sculptures on stone, the figure of a Roman soldier, generally on horseback, is a common adjunct to sepulchral inscriptions found in the Roman cemeteries. Unfortunately, the soldier usually has his sword by his side in its sheath, and although the shape of the sheath would lead us to believe that they did hold blades of the different known forms of the bronze swords, yet we cannot insist upon it. If the sheath were made of the form of the blade of a leaf-shaped sword, of course the blade could not be drawn out, it is, therefore, represented in one uniform shape, distinguished only from any ordinary scabbard by being short. However, I feel convinced that I have seen one or two of these sculptures in which the Roman soldier held the sword drawn, and in which it was clearly leaf-shaped; but I cannot at this moment put my hands upon them. If any one, however, will take the trouble to look over the plates of that readiest of all books of reference, the *père Montfaucon's Antiquité Expliquée*, he must be convinced of the absurdity of denying that these swords are Roman. In the sculptures on the arch of Constantine at Rome, about contemporary with the bronze swords found near Abbeville, and described by Mongez, the Roman soldiers are evidently armed with the leaf-shaped swords, as well as with the other forms, a circumstance which brings into immediate relation the forms and the metal. . . .

“We see at a glance that the dagger with which Cæsar was slain was identical in every particular with those found in the tumuli of Britain, which some antiquaries are now ascribing to the remote age of Phœnician colonies!

“Thus we see that the bronze swords, the bronze shields, the bronze spears, the bronze daggers, which have been found in Britain, are all Roman in character. The so-called ‘celts,’ chisels, etc., bear the same character with the weapons, and are sometimes found with them, and probably continued in use later. It is my firm conviction that not a bit of bronze which has been found in the British islands belongs to an older date than that at which Cæsar wrote that the Britons obtained their bronze from abroad, meaning, of course, from Gaul, *ære utuntur importato*. In fact, these objects in bronze were Roman in character, and in their primary origin.

And who has ever brought forward any evidence to show that the Romans did not use bronze for their weapons? Pliny tells us that, in the treaty which concluded the war between Porsena and the Romans after the expulsion of the Tarquins, that is about five hundred years before Christ, it was expressly stipulated that the Romans thenceforth

should use iron for nothing but agricultural purposes. Our acquaintance with the condition of that time is not sufficiently minute to enable us to judge what was the cause or the object of this stipulation, but it seems clear that swords were not made of iron, and they must, therefore, have been made of bronze. This stipulation continued in force during some three centuries, and it was only after the second Punic war, we are told, that the Romans began to adopt the form and material of the sword as it was in use among the Spaniards. Polybius tells a curious anecdote relating to the great victory obtained by the Romans over the Gauls during the consulate of Caius Flaminius, a little more than two hundred years before Christ. He informs us that the Gauls were armed with long pointless swords, which they used only in striking the enemy, while the Romans used short, stiff, pointed swords, with which they stabbed at the face and person. When the Gauls struck hard, the blade of the sword became so much bent that the soldier had to straighten it with his foot before he could strike another blow. The Roman officers, having observed this, directed the soldiers to close upon the ranks of the Gauls, and thrust vigorously at their bodies and faces before the latter had time to recover the use of their swords, and by this manœuvre the great inequality of numbers was partly compensated.

“When Sir John Lubbock (p. 35) says that I “lay much stress on the fact that the bronze weapons have generally been found near Roman stations and Roman roads,” he has applied to the weapons what I had said of a rather different object. During ages when travelling was neither quick nor safe, and people seldom took long journeys unnecessarily, they had to depend for many even of the necessities of life upon men who carried them round for sale periodically, and a multitude of people gained their living as itinerant traders and manufacturers. It was a practice general throughout the middle ages, no doubt derived from the Romans, and the very utility of such dealers formed their protection against injury and interruption. We find abundant traces of this practice, curiously enough, in relation to the bronze swords and hatchets. These consist in discoveries of deposits, usually of an earthen vessel for melting bronze, of which there is sometimes a residuum at the bottom, of moulds for casting the implements, and generally of some broken swords or other bronze implements, no doubt intended to be melted down for metal, and of similar articles entire, constituting stock in trade. Now my remark was, that these tools and stock of itinerant bronze manufacturers are almost always found near a Roman road, or in the neighbourhood of a Roman station, and that therefore we are justified in considering them as Roman subjects, who had travelled along the Roman roads, and rested

at those spots for personal or local reasons which are unknown to us. Discoveries of such deposits have been very numerous in Britain, Gaul, Switzerland, and Germany. I am not aware if they have been found on the other confines of the empire. One of these, consisting of a quantity of bronze celts, both entire and broken, was found near the foot of the Wrekin in Shropshire, not far from the great Roman road, the Watling Street; another, among which there were fragments of a bronze sword, at Sittingbourne, on the Kentish portion of the Watling-street; a third, consisting of bronze punches, chisels, and other implements, with several pieces of unused metal, one of which was evidently the residuum of the melting-pot, at Attleborough in Norfolk, on the Roman road between Thetford and Norwich; a fourth, consisting of sixty bronze chisels, etc., with a portion of a bronze sword and a piece of bronze which again appeared to be the residue from melting, all contained in an earthen pot, at Weston in Yorkshire, on the road from Old Malton (where there are the remains of a Roman town) to York. It is not necessary to enumerate any further examples. Sir John Lubbock seeks to explain the position of these finds by supposing that the Roman roads were laid upon older British roads, but this is an objection to which I cannot listen until he brings me the slightest substantial evidence that such was the case. To me, these "finds" alone are sufficient to explain a fact which Sir John hardly, or only feebly, denies, the identity of forms, and not mere similarity, of all these bronze swords, in whatever part of Europe they are found. I cannot imagine that any one will believe that this identity of form, is the result of chance, but they must have been derived from one general centre; and, when we consider the radius through which they are scattered, it was only the Roman empire that could have supplied such a centre. It is nonsense to suppose that, brought into Britain at a remote and obscure period by the Phœnicians, they could have spread in this manner. The whole mystery, then, is dispelled by the proceedings of these itinerant manufacturers, who must have been very numerous, and who went not only to the limits of the Roman province, but, no doubt, penetrated into the surrounding countries, and made weapons for their inhabitants. It was, for these, the easiest way of obtaining weapons. Swords were so rare, and so valued, among the Scandinavians and Teutons, that they believed them to have been forged by the gods; and I beg to state that the arms which the gods forged were made of iron. There are many reasons, into which I will not now enter, for believing that it was a subject of honour and glory, among the different branches of the Teutonic race, for a man to possess a sword; and here the "barbarian" had a chance of getting a sword to wear by his side at not so great an expense of wealth and

trouble as if it had been made by the gods, and he no doubt profited largely by it. And then, the "barbarians," contrary to the Roman practice, buried their weapons with the dead, in consequence of which we find in their graves a sufficiency of those weapons to fill our museums, while we only pick up one now and then within the bounds of the Roman empire. Such is the case with Ireland, where, by the way, it has been somewhat too hastily asserted that the Roman arms never penetrated, seeing that we know little of the *history* of our islands under the Romans,—that Juvenal, speaking as of a fact generally known, asserts,—

"Arma quidem ultra
Litora Juvernæ promovimus",—

and that Roman antiquities are now found in Ireland. Such is the case with Scandinavia, and also of the other countries of Europe bordering upon the Roman provinces. It has been alleged that some of the ornamentation of the Scandinavian bronze-work is not Roman in its character, which is true—but why? It is not probable that an enterprising people like the Scandinavians would be satisfied to remain long dependant on the precarious supplies, as they must have been at such a distance, of wandering merchants, and they would soon learn to imitate what they had seen done by others. Roman ornamentation and design, in their hands, would soon undergo degradation, until it took a character of its own, just as it did among the Anglo-Saxons, and among the Germans, and indeed among all the other non-Roman peoples into whose hands it fell. I have always held the belief that the mass of the Scandinavian ornamented bronze is nothing more than the development of Roman popular art under the influence of barbaric taste; and I think this will hardly be denied by any one who is familiarly acquainted with the forms and spirit of Roman art."

Mr. Wright concludes as follows:—"I will only repeat the belief, on which I have always insisted, that in this part of the world the use of bronze did not precede that of iron, and I believe that I am fully supported in this view by the opinion of our great metallurgist, my friend Dr. Percy. At the time of Cæsar's invasion, as that great warrior and statesman declares deliberately, the only bronze known to the Britons was imported; of course from Gaul, and it could not have come in large quantities. The Britons could not have made bronze themselves, for I am satisfied, by my own researches among our ancient mines, that no copper was obtained in this island until it was found by the Romans. I am informed that, instead of being easy, the process of mining copper or tin, and preparing bronze, is very complicated and difficult; whereas the smelting of iron is extremely easy, and in some parts of our island, as in the forest of Dean, the iron ore

presented itself on the surface, and in a form which could not fail to draw the attention of men who knew anything about metals. I confess that I only look upon the modern myth of the colonisation of this island by the Phœnicians as unworthy the consideration of a serious antiquary. It is based upon speculations which have no historical foundation. In these new questions which are agitated by men of science, we must enter upon the study of the remote period of archæology of which we have no practical knowledge, with a very profound knowledge of the subsequent historic period; whereas this new school of antiquaries prefer contemplating altogether the doubtful period speculatively from the utterly unknown period which preceded it, to going back to it from the known period which followed. Indeed, I fear that far too much of prehistoric archæology, as it has been hitherto presented to us, rests only upon a want of knowledge of what is historic."

We cordially agree with Mr. Wright in the last paragraph, and think he has done a good service in pointing out this fact.

NILSSON ON THE BRONZE AGE.

THREE decades have nearly elapsed since Sven Nilsson, the eminent Swedish anthropologist, published a large work "on the primitive inhabitants of Scandinavia, etc."* The book now before us is the first part of a new and enlarged edition,† which Prof. Nilsson is publishing, and which is entirely devoted to the bronze age. The fundamental theory which pervades the whole of the first section amounts to nothing less than this—that neither the Celts nor the Goths introduced civilisation and bronze into the North, and especially into Scandinavia, but the *Phœnicians*, who established factories, built temples, introduced Baal-worship, and remained in Scandinavia for so long a period, until, by intermixture, they became gradually absorbed in the mass of the native population.

That such a theory, so contrary to all current notions on this subject, will and must greatly stagger the archæologist, historian, and

* *Skandinaviska Nordens Ur-Juvenare, ett Försök i Komparativa Ethnografien och ett Bidrag till Menniskoslägtets Utvecklings-Historia.* Lund., 1838-1843. "The Primitive Inhabitants of Scandinavia"; an Essay in Comparative Ethnography, and a Contribution to the History of the Development of the Human Species.

† *Andra omarbetade och tilltänkta upplagan.* Bronsåldern (Stockholm. 1862).

even the anthropologist, is no more than may be expected. Whether or not the *facts* of our author may turn out to be *fictions*; whether his bronze *swords* are only *daggers*, as the antiquarian will have it, must be solved by archaic anthropology. Whether the account he gives of Pytheas' visit to the north will satisfy the historian, may be doubted. This much is, however, certain, that the work contains a vast amount of curious information, the result of great research, conveyed in a most attractive style. The evidence by which our veteran anthropologist supports his theory may be defective, but it cannot be sneered down, and must be seriously refuted. As no translation of this interesting work has yet appeared in England,* we feel sure that our readers will thank us for the subjoined version of some of the more important passages, which will convey a fair idea of the nature of the book. We trust that our author, now an octogenarian, may be spared to see the completion of his work. He has our warmest sympathy and good wishes for the success of his undertaking.

"The reasons which induced me to treat first of the bronze-age are, first, that little or nothing has been published amongst us on this subject; and secondly, because I have, during the last few years, chiefly, though not exclusively, been engaged in its study.

"I may be accused of boldness in expressing my conviction that our pretended knowledge as regards the pre-historic period of the Scandinavian North consists merely of philosophical speculations and poetical fictions, devoid of any real basis. It has, therefore, long been my wish to treat the pre-historical period of Scandinavia according to the same comparative method as applied to the so-called bronze age. I trust that every unprejudiced reader will admit that the results arrived at are not based upon loose hypotheses, but upon undeniable facts. Among the facts here, for the first time, I believe, adduced as proofs, I would mention the following:—1. That the emblems upon the bronze weapons are traceable to Phœnicia and Egypt, the places of their origin. 2. That the swords embellished with these emblems have short hilts, about two inches and two lines long, whilst the swords with hilts three inches long are not embellished with emblems, the cause of which I endeavoured to explain. 3. That bronze culture and Baal-worship were contemporaneous in the north. 4. That in Massilia, the home of Pytheas, Phœnician Baal-worship existed. 5. That the natural phenomena which Pytheas compares to a so-called sea-lung, occurs annually in the north. 6. That the Phœnicians introduced into the north agriculture, beer-brewing, and the preparation of mead. 7. That the Phœnicians had left behind traces of Oriental customs which

* An excellent translation into German has been published in Hamburg, by Meisaner.

have persisted in historical times in several regions of Northern and Western Europe. 8. That in the fourth century before Christ there existed in England a Baal-temple. And further, since Movers, in his learned interpretation of the Phœnician stone tablet in Marseilles, has shown the analogy subsisting between the Phœnician and Hebrew ritual, we are enabled to explain why the Phœnician temple-vessels found in the north are such as described in the Old Testament.

“In the first place, we shall demonstrate that the people who introduced bronze must have been of a stock foreign to the north and the west. Of this we can easily convince ourselves by examining a collection of bronze swords and the length of their hilts; for it is quite clear that these hilts must have been so shaped that the people could handle them. . . . On close examination we find that all swords with short hilts are embellished with ornamental decorations, whilst all swords with hilts three inches long have no embellishments, and are evidently of inferior workmanship. This fact, mentioned before, was fully confirmed by my recent examination of the museums of Stockholm, Lund, and Copenhagen; it cannot, therefore, be accidental. The length of the hilts necessarily indicates the breadth of the hands which grasped them. When we inquire which of these two kinds of swords were first introduced by the foreign colonists, we must come to the conclusion that it was that sort with short hilts and oriental embellishments, which may be traced to Phœnicia and Egypt, and cannot have originated in Europe. If it be assumed that the first colonists introduced long-hilted swords without ornamentation, and subsequently adorned them with oriental figures, I cannot conceive how they could *here* have acquired the oriental art, and how their hands, which were first broad like our own, should have shrunk and become narrow, and so have become apt to grasp the hilts of the ornamented swords. On the other hand, it is very conceivable that the colonists who arrived unmixed, bringing with them their embellished articles, may, and must in the course of time have become intermixed with the natives, and that their descendants have very gradually approached the physical conformation of the natives. That this alteration must have been effected very gradually is clear, and hence we find transitional swords. We find these swords *with* embellishments which approach in length the long-hilted sword; and swords *without* ornamentation, approaching, by the shortness of their hilts, the embellished swords. We are thus enabled, on examining a bronze collection, to distinguish the objects of the oldest period of the bronze age from those of an intermediate or recent period. . . . Fortunately, connected with the short-hilted swords, are the small bracelets of bronze and gold belonging to the bronze age. These bracelets are frequently so small that no adult

female of the present race inhabiting Western or Northern Europe could slip them over the hand. They thus prove that the females who wore them must have had hands proportionately as narrow as the males who used the short-hilted swords It results, therefore, from what has been stated in respect to the gradual changes in the bronze weapons, that the Phœnicians must have dwelt in the north for a long period until they became fused with the natives ; just as has been observed in other countries, where the Phœnicians settled among foreign peoples, and where they also ceased to constitute a separate nation whilst their language was also absorbed in the native tongue.

"A distinguished philologist of Dublin expressed his conviction that no Phœnicians had ever settled in Ireland, as no Semitic words are to be found in the old language of the country. I respect the conviction of every one, but I cannot share this. In Greece the only traces of the Phœnician language are found in some local names. There are also stated to exist many traces in Ireland which remind us of the Phœnicians and their worship. Some of these traces are also found in Sweden and Norway. In the vicinity of Marseilles there are found neither in the Italian nor in the French Semitic words, and yet it is known that at the last place Phœnician priests performed their worship in the Phœnician language.

"Somebody has objected, that though it may have been a people with narrow hands who introduced bronze, they may possibly have been a Hindoo people. To this I reply that the ornamentations betray their origin. We never found anything like it among Hindoo or Indo-Germanic peoples ; whilst among the Phœnicians and Egyptians we may trace them back to the remotest period as far as the memory of man reaches. I trust I have sufficiently proved that bronze has been introduced into the north by the Phœnicians ; that they themselves have brought it, and that they have dwelt here during a long period. . . . The question may now be asked, When did the bronze period first commence in the north ? It is impossible to give a definite answer to this question ; though proofs have been already given that it commenced in the north at a much earlier period than was generally imagined. Apart from the proofs already given, that the Phœnicians traded at a very remote period with Western Europe, we have undoubted evidence of their having had, at an equally remote period, stations in southern Sweden. In our oldest peat bogs in Schonen, the same in which skeletons of the aurochs and tortoise are found, indicating a period not much distant from that in which the Coast of Schonen and that of Prussia were yet connected, we find flint implements and ornaments of amber, and intermixed with them glass pearls, which prove the barter trade of the Phœnicians with the

natives at a time when the aurochs and the tortoise still inhabited the country.*

"It appears, therefore, to me, that the beginning of the bronze period, or its equivalent, the commencement of the trade of the Phœnicians in the north, lies so far back that we have no proper conception of it. This much seems certain, that the trade with the North was carried on by people from Tyre, and is much older than Carthage, which was founded eight hundred years before Christ. The trade was, however, continued by the Carthaginians and the Massilians. How long this period continued, and when it ceased in the north, cannot be determined. There are many grounds for assuming that it continued for a very long period."

ON THE ORIGIN OF THE GYPSIES.

By RICHARD S. CHARNOCK, Ph.D., F.S.A., F.R.G.S., F.A.S.L.

THE last volume of Transactions of the Ethnological Society of London† contains among other subjects, a paper by Mr. Crawford, on the origin of the gypsies.

After asserting that the "Hindu origin of the gypsies has of late years received general credence, and to some extent justly", the author of the paper forthwith sets to work to demolish the same!!! Mr. Crawford says:

"The evidence yielded by physical form will certainly not prove the gypsies to be of Hindu origin. They are swarthier than the people they live among in Europe, and this is all that can be asserted. The Hindus are all more or less black; and assuredly no nation or tribe of Hindus now exists, or is even known to have ever existed, as fair as the gypsies of Europe. It is nowhere asserted that

* "I may here quote what I said in *The Primitive Inhabitants of the North* concerning these glass pearls. 'They are of rude workmanship. The hole is not bored, but pierced when in fusion by an instrument of metal. There is no other trace of polishing than that the projecting edge is sometimes ground off. They indicate that glass-melting was yet in its infancy; but it can hardly be assumed that they were fabricated by the makers of stone implements. They clearly indicate a foreign people, which traded with the savage natives of Scandinavia, and bartered their glass, pearls, etc., for amber, fur, and other products, as is even now done in the barter trade between Europeans and the South Sea Islanders.' I wrote this more than twenty years ago, and, after further researches, find no reason to change anything in this passage."

† Vol. iii, New Series, p. 25, 1865.

the gypsies were a blacker people than they now are, when they first arrived in Europe above 400 years ago. In the features of the face the gypsies certainly resemble Hindus, but so also do all the genuine people of Europe. The Hindus have no other colour of the eyes, of the hair of the head, and of the beard than black. The most prevalent colour of these with the gypsies is dark, but not unfrequently there are to be seen with them grey and blue eyes, fair and even red hair—that variety in the colour of the integuments which is the especial characteristic of the European race. The gypsies are, in fact, a mixed race, and in blood far more Europeans than Hindus.”..... “There are no salient points of physical character that will give to the gypsies a descent from the Hindus, who themselves, but for the black colouring matter of the skin and other teguments might often pass for Europeans.”

Mr. Crawford seems to assume that as the gypsies are not absolutely black they cannot be of Hindoo origin. But the Hindoos can hardly be considered black. The only real black people are the negroes, the negroid nations of New Holland, Van Diemen's Land or New Guinea, the New Hebrides, and other islands of the South Sea. Many of the Hindoos inhabiting the northern part of Hindustan are of a light olive colour, and it is most probable that from the north of Hindustan the gypsies had their origin, passing into Europe through Affghanistan and Persia. But granted that all the Hindoos are really black, is it not possible that in the course of their wanderings the gypsies may have intermarried with people of a fairer complexion, and in time have themselves become fairer also? Considering that the colour of the skin depends to a great extent upon the texture of the cellular substance immediately under the skin, it is not at all unreasonable to suppose that a difference of food, climate, and other exterior circumstances may in time have had considerable effect upon the complexion of the gypsies. As an instance of the effect of climate and change of life on the human species, we need only compare the Yankees of the present day with the people of the mother country. It is not, however, so much a question whether the gypsies are of Hindu origin, as whether they originated in Hindustan, which contains upwards of ten millions of Arabs and Persians. Perhaps the author of the paper goes rather too far when he asserts that in the features of the face all the genuine people of Europe resemble Hindus. Except so far as they may all be said to belong to what is absurdly termed the Caucasian variety, such resemblance has not been shown. “It is in language, then” (says Mr. Crawford), “chiefly that we must rely for evidence of the Hindu origin of the gypsies, and even this is neither very full nor satisfactory. The dialects spoken by the different tribes of this people, although agreeing in several words, differ very materially from each other. They are, one and all, rude and imperfect jargons; for the

gypsies arrived in Europe totally ignorant of letters, and have, consequently no record, hardly even a tradition of their own origin." The author of the paper would seem here to admit that the gypsies did not originate in Europe; and if they did not, from what other part of the globe did they have their origin? We have assuredly no evidence of their having come from America; and their African descent is not much more probable. After referring to the intermixture of foreign terms in the gypsy language, and to parts of Hindustan the "present population of which some eighty millions as not likely to have furnished the emigrants that finally became gypsies," Mr. Crawford says "the Hindus of the Punjab, of Moultan, and of Scinde, being border nations, and speaking distinct languages, are naturally those to whom European writers have been disposed to ascribe the origin of the gypsies. The first of these, speaking the Hindi or Hindustanee tongue, the most current of all the languages of India, seems upon the whole, the most likely, etc., etc. Mr. Crawford does not seem to be aware of the fact that Hindí and Hindústání are quite different languages. There is indeed as much difference between the latter and the former, as between the English of the present day, and its base, the Anglo-Saxon. In the Hindí—a language of five dialects, spoken in Bahar, Bhojpur, Benares, Bindraban, and Delhi—nine tenths of the words are of Sanskrit origin; whereas in the Ūrdu or Hindústání, although based upon one of the Hindí dialects (perhaps the *Brája Bháká*) and the Prakrit, at least one third of the words are derived from Arabic and Persian; and the remainder from Guzaráthí, Karnáta, Tamil, Telugu, Malayálam, Turkish, Hebrew, Portuguese, Greek, Latin, and even English. After giving a list of the gypsy words, in all 123, which he considers traceable to Hindí or Hindústání, Mr. Crawford says:

"Neither the number nor nature of the Indian words, be they Sanskrit or Hindi,—and I am not aware that there are any other than these found in the gypsy language, can warrant us in concluding that it is an Indian tongue. They are, in fact, not greater in number or in character—not more essential, than are the Malayan words in the languages of the people of the South Sea Islands, or in the language of Madagascar; tongues fundamentally different from the Malay, as well as from each other, and spoken by men different in race. I may, indeed, further add that the Indian words which exist in the language of the gypsies are by no means so numerous as the Latin ones which are found in the Welsh and Armorican, or in the Irish or Gaelic. The most copious vocabularies of the gypsy speech hitherto made do not amount to a complete language at all, nor indeed to the fourth part of any tongue, however meagre and rude. Dictionaries have been already framed of the language of the cannibals of New Zealand, which contain three times as many words as the vocabulary of Mr. Borrow, the fullest that has come under my notice."

The words referred to by Mr. Crawford as of Hindu origin, have been derived, as he says, from the vocabulary of Borrow,* which, at a rough guess hardly contains more than 2,260 words; whereas, had the author of the paper consulted Bischoff's *Deutsch Zigeunerisches Wörterbuch*,† he would have found that the gypsy language contains at least 4,500 words, which is not only a fourth as many words as some languages, but considerably more words than some languages.‡ Of these 4,500 words, at least one fourth may be traced to the Hindústání, Bengálí, Sanscrit, Malabar, Malay, etc.; the remainder being derived principally from the Turkish, Greek, Latin, Coptic, Slavonic, Wallachian, German, etc., etc. Now, when it is taken into account that the gypsies have been wandering among peoples speaking different languages for upwards of four centuries, it is really surprising that they should have preserved so much of their native tongue. Grellman, referring to a vocabulary contained in his work, says:—

“The words only have been learnt from the gypsies within these very few years; consequently at a season when they have been near four centuries away from Hindustan among people who talked languages totally different, and in which the gypsies themselves conversed. Under the constant and so long continued influx of these languages their own must necessarily have suffered great alteration, more especially as they are a people entirely raw, without either writing or literature. One word after another must have crept, from the others, into their language; consequently, by the frequent use of foreign words the gypsy word of the same sign was more rarely used, and by degrees entirely lost from their recollection, by which circumstance the original composition of their language became entirely deranged; which is the reason why, as anybody may convince themselves by inspection, all kinds of languages and idioms, Turkish, Grecian, Latin, Wallachian, Hungarian, Slavonic, German, and others make part of the above vocabulary,” etc., etc.§

When I assert that at least one fourth part of the gypsy language may be traced to the Indian languages, I am, perhaps, rather under the mark. In the Mithridates of Adelung|| are given three forms of the Lord's prayer in gypsy, one of which is taken from a MS. in the University of Göttingen. The latter contains 64 words, 40 of which may be traced to the Hindústání and other languages of Hindustan. Of the remaining 24 six occur twice, so that there are only 18 words unaccounted for. If Mr. Crawford doubts this fact, I refer him to Adelung. Did the

* *Gypsies of Spain.*

† Ilmenau, 1827.

‡ The Manchou contains not more than 16,000 words; the Malay, 13,000; the Hebrew, 5,642; the Hindi, 6,000; and the Egyptian, 4,000.

§ *Historischer Versuchungen über die Zigeuner* (Zweite Ausg.), Götting, 1787, of which there are translations in French and English.

|| By Vater.

gypsies become acquainted with the languages of Hindustan in Europe? It would be absurd to suppose a people whose features, manners, customs, etc., bespeak their oriental origin, suddenly appearing in Europe (like the armed men who sprang from the dragon's teeth, sown by Cadmus), and speaking languages of Indian origin. Mr. Crawford tells us that the Indian words which exist in the gypsy language are by no means so numerous as the Latin ones found in the Welsh and Armorican, or in the Irish or Gaelic. The comparison is absurd when it is taken into account that the Irish contains 50,000 words, the Welsh about 40,000, the Gaelic about 23,000, while the gypsy does not exceed 4,500. But what would it prove? Say that not more than one-eighth of the gypsy language is of Indian origin, and that one half of the words found in the Celtic languages may be traced to the Latin (or rather Greek and Latin), still they are languages. Indeed, considering the ignorance displayed by Mr. Crawford in his paper on the Celtic languages, read a short time since before the British Association, perhaps the less Mr. Crawford says on those languages the better. The author of the paper further says:—

“There are absent from it (the gypsy language) also terms which ought to be Indian, if the gypsy language were of Indian origin. Thus the name for rice and cotton, the peculiar products of India, are represented, not by Hindu words, but by terms of untraceable origin.* It is the same with the names for wheat, iron, copper, brass, tin; objects familiar to the Hindus in any age that we may fancy the gypsies to have emigrated from India. In the same manner the days of the week are not Hindu, but either fabricated or drawn from some unknown tongue. We miss altogether the names of the ‘heaven’ and the ‘hell’ of Hindu mythology, although they are found in the languages of the remote islands of the Indian Ocean.”

As I have before said, when we take into account the length of time that the gypsies have sojourned in Europe, and the numerous languages and dialects in which they have been compelled to converse, it does not seem at all unreasonable that they should have ceased to use many of their native words, and that they should have borrowed others from the nations among which they have dwelt. Although the gypsies have no native name for the metals enumerated, nor for wheat, rice, or cotton; they have words for gold, silver, barley, sugar, salt, milk, water, and fish, all derived from the Hindústání. I do not know whether the gypsies wear shirts, and I cannot, therefore, say if they have any use for the word cotton; and they doubtless prefer a nice young pullet from the farm-yard to either rice or oatmeal.

* Why untraceable? The Gypsy word for “rice” is *reiso*, which in Ger. is *reis*, Lat. *oryza*, Gr. *opysa*, Eth. *res*, Arab *aroz*.

"The names which the gypsies have assumed themselves, or which have been given to them by strangers (says Mr. Crawford) will not much help us in tracing their origin. Not one of them can be traced to any Hindu language." "The farthest country east to which we can trace a specific name for the gypsies, is Persia, through which they must have passed in their transit, and in which it is known that they sojourned. Their name in Persia is Zengari and Zingarie; this, through the Turkish which has adopted it, is the source of most of the names by which they are called in the languages of Europe, however much these may be corrupted. Thus in Moldavia we have them as Tzigani, in Hungarian as Chingari, in Germany as Zingener (Zigeuner?), in Italian under the different form of Zingari, Zingani, Cingari, and Cingani; and in Portuguese Cigari. I think it even highly probable that the most frequent name which the gypsies give to themselves, Sicalo or Sicaloro, is no other than a gross corruption of the Persian word." "In Turkey they take the name of Rum, which is but the Persian corruption of the Latin Roma, applied by oriental nations to the Turkish empire."

The appellation *Roma*, however, rather signifies "men", and is most probably derived from the Coptic. The gypsies likewise call themselves Sinte, perhaps as coming from the banks of the Sind^h, i.e., the Indus;* and Kola, according to some, from the Hindí *kālī*, black; but this latter name may be the same with Koli, Koolí, Kúlí, erroneously Kollee, the appellation of a wild and predatory tribe in the forests and wilds of Guzerat; or, perhaps, even from the Sanscrit *kula*, a family, race, tribe. In the eastern provinces of Khorassan the gypsies bear the name of Karashmár, and in some parts of India Luli or Luri; also Kauli (a supposed corruption of Kabuli, i.e., one from Cabul); and Karáchi. The gypsies of Europe correspond in their habits with the curious tribes called Nuts or Nats, who live by feats of dexterity, sleight of hand, fortune-telling, and the like; and are numerous in Bengal, Behar, Bundelkund, Malwah, and Guzerat. They are commonly known (says a late writer) by three names—1, Nat,† a rogue, one who leads a wandering life; 2, Beriā, a dancer or tumbler, Berin, a female dancer or songstress; 3, Bāzigar, a player or juggler. The two first are Hindí names expressive of their characters; the third is a Mohammedan or Urdú appellation, of the same tribe, from the Persian *bāzi*, play, *gar*, an affix of agency. The Nuts have two languages; one for the use of the craftsmen of the sect; the other, general among men, women, and children; both are based upon the Hindústání. The first in general is a mere transposi-

* The Gypsies, in their language, call themselves Sind; and their language has been found to resemble some of the dialects of India.—*Bombay Transactions*, 1820.

† Sanskrit *nata*, a dancer, actor, tumbler, a public performer.

tion or change of syllables ; the second is a systematic conversion of a few letters. The following is a specimen of both :—

<i>Hindústáni.</i>	<i>Form 1.</i>	<i>Form 2.</i>	<i>English.</i>
Ag	Ga	Kag	Fire
G'hur	Eug,hu	R,hur	House
Sona	Na-so	Nona	Gold
Mas	Sama	Nas	1. Mouth
Omr	Muroo	Komr	Age

According to Richardson, the Panchpeeree or Budeea are considered as appertaining to the same class as the Bazeegurs, and are also termed *Nuts*. They differ from the Bazeegurs in many points; though probably in their manners there will be found a stronger similitude to the gypsies of Europe, than in those of any other tribe.

The gypsies also resemble some of the tribes of Hindustan in their fondness for carrion.

A writer in *As. Res.*, vol. vii, 179, says: "Both the gypsies and the Nuts are generally a wandering race of beings, seldom having a fixed habitation. They have each a language peculiar to themselves. That of the gypsies is undoubtedly a species of Hindoostanee, and so is that of the Nuts. In Europe it answers all the purpose of concealment. Here a conversion of its syllables becomes necessary. The gypsies have their king; the Nuts their *Nardar Boulah*; they are equally formed into companies, and their peculiar employments are exactly similar; viz., dancing, singing, music, palmistry, quackery, dancers of monkeys, bears and snakes. The two latter professions, from local causes, are peculiar to the Nuts. They are both considered as thieves, at least that division of the Nuts whose manners come nearest the gypsies. In matters of religion they appear equally indifferent, and as for food, we have seen that neither the gypsies nor the Budeea Nuts are very choice in that particular, and though I have not obtained any satisfactory proof of their eating human flesh, I do not find it easy to divest my mind of its suspicion on this head. Indeed one would think the stomach that could receive without nausea a piece of putrid jackal could not well retain any qualms in the selection of animal food. Though in the *Encyclopædia Britannica*, Grellmann's theory is thought slightly of, the similarity of language being deemed but inconclusive evidence, yet in this instance, even in opposition to such authority, I will venture to consider it as forming a basis of the most substantial kind. It is not the accidental coincidence of a few words, but the whole vocabulary he produces, differs not so much from the common *Hindoostanee*, as provincial dialects of the same country usually do from each other. Grellmann, from a want of knowledge in the *Hindoostanee*, lost many opportunities of producing the proper word in comparison with the gypsy one."

Another writer says: "In Turkey and the Levant the gypsies are called *Tchingenes*. It is now generally believed that the gypsies migrated from India at the time of Timur Beg; that in their own country they belonged to one of the lowest castes, which resemble them in their appearance, habits, and especially in their fondness for carrion and other unclean food. Pottinger, in his travels, saw some tribes resembling them in Beloochistan. There is a tribe near the mouths of the Indus called *Tchinganes*." Mr. Crawford tells us that "the language of the gypsies contains a very few words which are Hindi or Hindustani, without being at the same time Sanskrit; while the majority of the Indian words are both Sanskrit and Hindi, but in the mutilated form of the latter." Does the reader comprehend this? I do not. One of the points which Mr. Crawford says is put forward as a reason of the supposed Indian origin of the gypsies, is the history of their migrations, but this is assuming the whole question. Mr. Crawford commences with statements of others with which he seems partially to agree, but which he afterwards endeavours to refute, and concludes his paper without arriving at any conclusion as to the origin of the gypsies.

PROCEEDINGS OF THE PARIS ANTHROPOLOGICAL SOCIETY.*

At the meeting of May 5, 1864, M. Broca gave a description of the deformed cranium found at Voiteur, which he observed reminds us of the most extravagant deformations seen in the crania of the ancient inhabitants of America. M. Bonté presented to the Society a treatise by M. Joulin *On the Pelvis of Mammals*. He said that three cardinal facts were the results arrived at by M. Joulin as regarded anthropology. First, That the human pelvis, even in the most degraded races, differed completely from that of the Simian tribes, including the anthropomorphous group; secondly, That the pelvis of the negroes had noways that animal form ascribed to it by Vrolik and his followers; and thirdly, which is more important, That it is absolutely incorrect, that in the negro race the antero-posterior diameter of the superior inlet, is more developed than the transverse diameter (contrary to what is observed in the white race); that the *predominance is transverse in all human races*, and that the varieties of the shape of the pelvis in animals do not admit of making this anatomical character the base of any classification.

* Continued from vol. iii, p. 325.

Vrolik and Weber have asserted the contrary, but M. Joulin says, that they are in contradiction with the elements they have themselves furnished.

M. Pruner-Bey, in his recent work on the negro, agrees with Vrolik, Weber and Prichard, though he expresses his opinions in different terms. In his *Mémoire* (p. 298) he observes, "The cranium, imperfectly balanced, is elongated from in front backwards and laterally compressed, as is the thorax and the pelvis." He adds (p. 304), "The pelvis is remarkable for its lateral compression; the bones are very massive, the cavity is cuneiform, and inclined from the front backwards." Finally (p. 336) he says, "The lateral compression of the thorax and the pelvis, etc., are characteristic features of the Nigritian race." Now it is evident that there can be no lateral compression without the predominance of the antero-posterior diameter.

M. Joulin hoped that the Society might afford him an early opportunity of proving his assertions, not from books but from nature itself.

The Secretary then gave an analysis of Dr. Thurnam's important treatise "On the two chief forms of Ancient British and Gaulish Crania," which gave rise to the following interesting discussion.

M. Lagneau wished to know whether Dr. Thurnam in his *Mémoires* made mention of the local distribution of the two kinds of monuments in the British islands; for the presence of round barrows or tumuli in the south-eastern region of England and the south of Ireland, would give support to Dr. Thurnam's opinion that the latter were the work of a people come from Belgium. It is known that tribes who settled in the south-east of England had Belgian names. One of these peoples called themselves Belgians; another bore the name Atrebates, a tribe of which latter inhabited Belgian Gaul (Artois). In Ireland, also, the Firbolg occupied the south of that island.

M. Broca regretted, that owing to the absence of a map he was unable to follow the geographical indications of Dr. Thurnam, and to give a satisfactory reply to M. Lagneau's question.

M. Pruner-Bey said that Dr. Thurnam's treatise had raised doubts about the solution of certain questions which we had reason to believe had long been solved; that he had long been acquainted with the ideas of this his eminent colleague, and that he found it the more necessary to refute them since they had found an advocate in the person of their respected general secretary. M. Pruner-Bey then read the following paper.

Touching the question of the pre-existence in Europe of brachycephali, there is, as in all questions relating to the races of mankind, much that is certain, much that is probable, and much that is uncer-

tain. What is certain has been clearly established in Scandinavia. There the brachycephali have preceded the dolichocephalic peoples. There the former are characteristic of the stone period, which is separated from the other periods by the absence of domestic animals, excepting the dog. Consequently the brachycephalic skulls, the absence of metals and domestic animals, correspond with the features of the stone period in the North.

There are in Southern Europe positive traces of an identically similar stone period. Implements made exclusively of stone or bone, no traces of domestic animals, fragments of human bones, belonging chiefly to a brachycephalic race, are found in France, Belgium, etc. But, as regards the succession of ages in Western Europe, science does not possess facts so positive as those relating to the North. I mean that, on leaving the field of palæontology, the separation of ages cannot be so clearly demonstrated. On the contrary, we find here the marks of a transition; and here it is that the confusion concerning the succession of human types commences. In point of fact, no sooner do objects of metal appear, than they are found either intermixed with stone implements, or, where they are isolated, they are also found associated with types of crania resulting from intermixture of the two races.

Accident may give rise to error. Supposing, for instance, that in England or elsewhere there are found in graves a certain number of elongated skulls exclusively associated with stone and bone implements, and, inversely, brachycephalic crania accompanied by metal objects, we might then feel authorised to assert that the dolichocephali had preceded the others. Has this really happened? Nearly all English anthropologists support this theory; they believe that the order of succession is in their country *inversely* that of Denmark. But this theory is open to objection.

1. The Celts of the British Islands have used stone weapons down to an epoch very nearly approaching our own. In Irish legends the "leah-mileadh" (sling-stone carried in the girdle) plays an important part in the poesy of the bards. The various terms for spear are also reducible to the root signifying stone. Consequently the association of stone implements with the elongated crania of the British Islands, only proves to me the Celtic origin of these crania.

2. As regards the pre-existence of the brachycephalic type in these islands, the facts relating to this question are, to the best of my knowledge, not numerous, and are often advanced by authors under the influence of preconceived opinions. Thus Mr. Wilde, the founder of anthropology in Ireland, an eminent *savant*, hesitates to accord to the brachycephali pre-existence in Ireland, chiefly on account of the development of the forehead being greater in the brachycephali than in

the dolichocephali. Similar views have guided Eschricht in characterising the Danish brachycephalic type; he considered it as of Caucasian origin. It is here noteworthy, that it is precisely in those Irish graves which most resemble the Scandinavian graves of the stone period that, so far as I know, no human bones were found; thus the question, as regards Ireland, is still an open one. Prehistoric Scotland has been revealed to us by the remarkable work of Dr. Wilson. This author acknowledges the presence of two cranial types in his country in prehistoric times. He has given a good table, in which he classifies the crania which appear to him typical of the extremes. But, whilst he admits the prehistoric existence of these two types, he cannot get rid of the historical race of the Celts; and he consequently places his Celtic type between the two extremes, and associates with them very dolichocephalic crania. This procedure is very significant. It shows, on the one hand, that, in consigning the true Celtic type to the prehistoric races, we must make use of the intermixture between the Celts and brachycephali. Mr. Wilson, nevertheless, speaks with the reserve of a *savant* on the question of the pre-existence of either type, keeping the question open until we are in possession of a greater number of facts; and he is quite right.

3. Very recently the London Anthropological Society has published in its *Review* (February), a fact which alone clearly proves the existence of a brachycephalic race in Scotland during the stone period. The skeleton found at Bennet Hill, the cranium of which was carefully compared with Danish crania by our eminent colleague, Mr. Busk, furnishes another proof of the great caution needed in the treatment of the present question. We have here a brachycephalic cranium approaching very nearly the Danish type, also rude flint implements, kjökken-möddings, as in Denmark; in short, all the characters which tend to establish the high antiquity of the brachycephalic race in Scotland.

4. As regards England, I cannot take upon myself to reply to so conscientious an observer as Dr. Thurnam, and one who deserves so well of our science. Nevertheless, the proofs hitherto furnished as regards the inverse order in which England is said to have been peopled, compared with Denmark, appear to me insufficient. So long as the successive ages in that island are indicated solely by implements, I must, for reasons already given, reserve my opinion. Supposing, even, that after the arrival of the Celts in England, some brachycephalic colonists, acquainted with the use of metals, had then arrived in England, say from France or Spain; such exceptional cases would by no means tell against the general and well established order in which Western Europe had been peopled.

It were desirable that the same importance should be attached to

palaeontological facts, in England, as is now done in France; the question might then receive a solution, tardy, perhaps, but positive. We may rest assured that such will be the case, for our sister society of London contains all the elements requisite for the definitive solution of the problem under consideration.

M. Broca said that it was not without a certain astonishment that he saw M. Pruner-Bey approach the tribune, with a written paper in reply to his analysis of Dr. Thurnam's memoir. He would, in the first place, tell M. Pruner-Bey that, in his quality of secretary-general, it was his duty to give a faithful account of Dr. Thurnam's opinions, without, however, constituting himself the advocate of the views of the honourable English anthropologist. He fully concurred in some of the opinions enunciated, but entirely dissented from others. Resuming now his character as a member of the society, he would enter into the discussion on his own account.

I cannot accept, continued M. Broca, the explanations of M. Pruner-Bey. The stone age is not a period of which the beginning entirely resembles the termination. It had its distinct phases. At first, rudely worked stones occur, without any vestiges of domestic animals; then are found better polished stones, together with the bones of animals now no longer existing in our climate (the reindeer); and finally stone implements of finer workmanship, no longer associated with the bones of the reindeer, but with those of domestic animals.

Whenever a grave contains human remains in either of the above conditions, without any traces of metal, this appears to me incontestable proof that it belongs to the stone period. If this applied only to a single grave or a small number of graves, I could understand the doubts; but such is not the case. In the north as well as in the south, in Central as well as Western Europe, a large number of such graves are found, all resembling each other, all containing the same stone implements, worked in the same fashion, with or without the traces of animals, domesticated or otherwise. The absence of metals cannot, therefore, be ascribed to accident; and it appears to be demonstrated, that these various graves are indicative of the progressive civilisation of peoples acquainted with the use of stone only. So far from denying, I am rather disposed to believe, that the stone period is connected with the bronze period by a transitional epoch, which enables us to find domestic animals and stone implements associated with metals; for which reason I have put the question to our archaeological members, whether their researches have established as a certainty that the first Indo-European invaders knew the use of metals? Their reply was sufficiently favourable to allow of the assumption that the transition period then commenced. It seems to me, therefore,

logical to infer that, if the graves devoid of metals contain dolichocephalic types, this dolichocephaly is foreign to the so-called Celtic period, and that it is at least contemporaneous with the brachycephalic types found in Sweden and Denmark. It follows, therefore, that the dichotomy of Retzius must be accepted with great reserve—an opinion already expressed by me, on the occasion of my depositing in the museum the sixty Basque crania which M. Velasco and myself had collected. Contrary to a long prevalent idea that the Basques were brachycephalic, it has been demonstrated by actual measurement, that the dolichocephalic type greatly predominated. As these crania came from a locality in itself a sufficient guarantee of the authenticity of their origin, I still retain my opinion, despite the observations of M. Pruner-Bey, who only assimilated one purely brachycephalic cranium to the Iberian type, referring those bearing a decided dolichocephalic character to the Celtic type, probably derived from Ireland or France, and comprising under the name of Celto-Iberians all cases where dolichocephalic shape is less distinct.

Our colleague has a very simple theory. Every pre-Celtic cranium must be brachycephalic, and every dolichocephalic cranium must be Celtic. The Neanderthal man is a Celt, because he is dolichocephalic; the woman of the dolmen of Meudon is of the Celtic race, for the same reason; whilst the brachycephalic man in her company is of the pre-Celtic race. The dolichocephalic cranium of Chamant is also Celtic. Thus the Celts have with us preceded the bronze age. M. Pruner-Bey should tell us clearly what he thinks of this. The Basques ought to be brachycephalic, since they speak a pre-Celtic language. According to his theory, the Basques of Z——, who speak Basque but are dolichocephalic, immediately become a colony of Celts; the dolichocephali of Britain become Celts, simply because they are dolichocephalic; the long barrows of the stone period, in which only dolichocephalic crania are found, immediately become Celtic monuments. The convictions of our colleague are so decided, that he found himself in a condition to refute the memoir of Dr. Thurnam when it was still unpublished. And upon what are his convictions based? Upon a theory which itself is questionable.

M. Pruner-Bey: I shall examine the arguments of M. Broca successively, but in an inverse order. As regards bronze, and, I may add, copper, as a characteristic of the Celtic period, I entirely agree with the archæologists, as stated in the note which provoked the reply of our honourable colleague. I am still of opinion that human crania, when they present in the cerebral skull as well as in the face a type so definite as that of the Celts, are at least as indicative, and even still more so, than the objects found along with them; and, from my

former writings, it will soon appear that I do not consider a cranium Celtic simply because it is dolichocephalic. As regards the stone period, and the inference to be drawn from the fact that stone weapons are in certain graves found with dolichocephalic skeletons, I must enter into some details to explain my doubts on this subject. The circumstance of our finding in certain ancient graves stone implements associated with bronze instruments, proves that the two periods were not abruptly separated; in other words, we must admit a transition period. This is sufficiently proved by the researches of Mr. Wilde in Ireland. He has, in fact, not only demonstrated the existence of a large quantity of copper instruments, but he has established the fact that the most usual and the rudest among them are imitations of analogous stone implements. From these two series of facts, we may infer as follows: Although the Celts were acquainted with the application of the above metals, it does not follow that in our latitude they made exclusive use of them; and consequently, if skeletons, in my opinion Celtic, are associated with stone weapons, it does not necessarily follow that we are face to face with a stone period pure and simple—an age which is lost in the darkness of night, while its end almost approaches our period. In point of fact, the inhabitants of Great Britain made partial use of stone weapons in the conflict with William the Conqueror, and even the French had stone-axes; whilst the stone-hammer had scarcely commenced to disappear to Germany. Moreover, might not the preference have been given to stone weapons in selecting such as were to be deposited in the graves of the departed?

I must recur to the sixty Basque crania, for which the society is indebted to the generosity of our Secretary General. This collection consists of three classes of crania, the first and smaller portion is brachycephalic; the second forming the majority is dolichocephalic; whilst the third, resulting probably from a mixture of the two extreme types, is mesaticephalic. The results of this classification accord completely with what we have been told by competent observers (M. de Gobineau, M. de Montague) on the multiplicity of the Basque type. M. d'Abbadie, himself a Basque, and a scrupulous and practised observer, maintains that there exists no uniform Basque type, and that he had distinguished at least three which differ by the *ensemble* of their characters. Is this anything else than the incontestable indication of intermixture? Moreover, I have myself studied the history of that country, and have also been informed by the *savant* just cited that, however exclusive the Basques may be as a general rule, they have accorded the right of citizenship to the Irish, and in fact an Irishman once established amongst them enjoys all the rights of a native. All

this leads me to presume that the brachycephalic stock represented, both in the crania and in the living in the Basque provinces, is that of the ancient Iberians, and that the elongated crania there found in certain spots are of Celtic origin. I have thus a wider basis than had the late M. Retzius.

There is, however, a means of coming to an understanding on the question of the dolichocephali whom M. Broca and Thurnam consider as pre-Celtic. Let those who are of this opinion first clearly define the Celtic type, and then show us by one of the craniometric methods now adopted the differences which separate their pre-Celtic dolichocephali from the genuine Celts. Then only shall we be able to discuss the reality and the value of these differences, and place this interesting question on a solid basis. But as long as we employ only general terms we shall be far from attaining our object. For my part I have always abstained from complicating these questions, and until I am better informed I shall maintain, in reliance upon history, that the west of Europe was and is still preferentially occupied by Iberians and Celts differing as regards crania, stature, hair, etc. As regards the Celts, I have already had occasion to demonstrate that their crania, though dolichocephalic, on the whole, present, at least, three varieties. The ancient brachycephali, in the study of which I am now engaged so far as the materials at hand permit, and shall have the honour shortly to submit the results to the society, also present different states according to the epoch to which they belong. These variations are, as among the Celts, met with over the whole area formerly occupied by this group; we are not, however, on that account justified in giving an opinion on the unity or plurality of this stock. One word more as to the proper or improper application of the term stone-age to the relics found in graves. I admit that appearances are against me when I contest the propriety of the term, when by the side of the skeleton stone implements alone are found. Nevertheless, the archæological and historical considerations which I have just indicated justify my doubts in lack of better information, and, on the whole, I believe that craniology is entitled to the last word on this subject.

M. Leguay : I concur in the opinions expressed by M. Broca as regards the monuments of the stone period, and I dissent completely from the views of M. Pruner-Bey. I do not agree with those who hold that there was one, and only one, stone period. As regards France, while accepting the theory that the arrival of the Celts, or rather that the period called Celtic, coincides with the arrival of domestic animals, my opinion is that the latter have preceded by many centuries the introduction or the discovery of bronze, which it is believed was introduced by the Celts or *pseudo-Celts*.

Three, I might say four, distinct stone periods have hitherto come under our observation. They may be determined by the nature and the comparison of the various objects they have produced. Two of these are palæontological.

1. The first, contemporaneous with the quaternary strata, preceded the great revolutions which have transformed the surface of that portion of the globe we inhabit; I pass over, as not sufficiently proved, the recent discoveries of M. Desnoyers in the tertiary strata.

2. The second stone period, much nearer to us, followed the above revolutions. This epoch, contemporaneous with extinct as well as some existing animals, has left numerous traces in the caverns. The presence of the rein-deer, *ursus spelæus* and large *felidæ* characterise this epoch. The horse and the deer also were not unknown.

3. The third succeeding age may be subdivided into two periods :
a. The one prehistoric, entirely resembling the preceding age as regards the material, viz., *flints*, differs from it completely as to the form. The horse and the deer only now and then occurring in the preceding age now appear under all circumstances with the *Bos primigenius* and a large number of domestic or wild animals. The reindeer has disappeared, or rather it has not yet been met with. *b.* The second period approaching to or forming part of the so-called Celtic or bronze period shows only domestic animals. Was bronze already known at this period? I cannot tell; the graves of this period do not contain any. This last period has continued as a stone period during the bronze age, during the iron age in the time of the Romans, and even later flint was used for a variety of purposes. . . .

M. Dureau said that he shared M. Pruner-Bey's opinion that the stone age can be much better studied in the north of Europe, Denmark and Sweden. Concerning the division of the stone period into several epochs, he believes it impossible, in the present condition of archæology, clearly to establish such a division.

M. Leguay replied that the stone periods might be determined by two modes, the fauna and the flints, the monuments and the implements of each epoch. The flints always coincide with the fauna. In the first age which can be determined by the fauna, or rather by geology, the flints contemporaneous with antediluvian animals are in harmony with them. We then find the rude hatchets in the deposits of the quaternary epoch. Some knives and other flints are found with them, but in a rudimentary state, and when they are compared with those of the succeeding period it is immediately seen that they cannot have been produced by the same individuals,—this is the age so well studied by M. Boucher de Perthes.

The second age is characterised by flints of far superior workmanship.

It might, perhaps, be called the knife age, for knives are found in such numbers that the other implements form, as it were, the exceptions. What mainly characterises this epoch is the presence of carved bones of the reindeer and stag antlers. An attentive study of these objects shows that there existed an artistic sense sufficiently developed to denote a relatively advanced civilisation which is not shewn in the succeeding age. The fauna of this period distinguishes it from that which succeeded it quite as clearly as the flint implements. Pottery is absent. It ought to exist, and its disappearance is a fact which still requires explanation. The numerous discoveries of this epoch have been made by Messrs. Lartet, Christy, de Vibraye, Garrigou, Brouillet, Millet, etc.

The third age comprises two divisions, which differ little as regards the flint implements and the pottery. The flints of the first portion resemble those of the second age, but they are associated with coarse pottery mixed with pebbles, cinders, and even bones, whilst the second portion of this period is distinguished by well-finished objects, and those polished hatchets so much sought after. . . . In the first division of this age occur the dolmens and other monuments of the so-called Celtic period. . . .

From these facts the different stone periods may in a general way be determined.

M. Gustave Lagneau then read a paper on the deformed cranium found at Voiteur.

At a meeting of the society, May 19th, M. Lucien Biart, correspondent at Orizaba, sent from Mexico a chest containing fossils and two crania obtained from the grotto d'Escamela at Orizaba.

M. Perier then read the following note "On the Annamites of Lower Cochin China," written by a physician :—

Lower Cochin China is, in consequence of several revolutions, inhabited by a mixed population. There are met with in all parts of the Annam Empire Chinese and natives, Kambodjiens, Fankins, etc. The primitive population still exists ; it possesses a peculiar physiognomy, apart from the characters common to all the Indo-Chinese races. The general form of the head is cylindrical, the top is flattened ; the antero-posterior diameter is smaller than is the case with Europeans, and an examination of the cranium shews that the occipital foramen is behind the median line.

The face is flat and broad, owing to the development of the cheek-bones, which are prominent and rounded ; forehead broad and arched, eyes small, nose flattened at the root, mouth large, lips thick, inferior jaw strong, specially below the zygomatic arches. Beard weak, and appears very late ; hair jet black.

The trunk is uniformly square, so to speak, from head to foot. The

Annamites have, as it were, no figure. The pelvis is very wide, which imparts to their walk a somewhat theatrical swagger. The women, as is natural, have this part of the body more developed than the males, and this conformation is frequently met with on so exaggerated a scale that the axes of rotation of the thighs are so wide apart that each step is accompanied with a double movement of rotation in a semicircle right and left.

The limbs are not deficient in development, specially the thighs, which, in some cases, seem as thick as those of Europeans. But the muscles, though voluminous, are flabby and far from being an indication of strength. A peculiar structure of the big toe on each foot is often met with; these diverge from the others to such an extent, that when the feet are close to each other, the two big toes overlap. So placed, the toes seem susceptible of a certain education, and certain Annamites frequently use the foot as a prehensile organ. The colour of the skin is yellowish, and the stature low, which, combined with the absence of the beard, give them a juvenile appearance. It is said that they live to an advanced age, and according to the natives centenarians are by no means rare. They have less tendency to grow fat than the rest of Indo-Chinese. Obesity is, however, still considered a beauty amongst them as among all their race.

The Annamite has a gay and noisy disposition, he is intelligent and adroit, but lazy and a liar. Under the influence of fear he becomes humble, cringing and passively obedient to an incredible degree. With them the noble organ is not the heart, but the liver; of a brave man they say: he has got a liver. (Zinguetti, Méd. maj. Une année en Cochinchine, dans le Recueil de Mém. de Méd. de Chirurg. et de Pharm. Milit., Fevr. 1864, t. xi, p. 98-100.)

Recruits for the Army.—Dr. Guibert, of Saint Brieuc, transmitted to the society some remarks relative to the discussion on the examination of conscripts, which had taken place at the meeting of February 4. M. Broca, M. Boudin, and others, who have written on exemptions from military service by reason of not coming up to standard, have based their calculations on the total number of the conscripts examined which has been compared with that of the number rejected for being below the fixed height. Dr. Guibert is of opinion that only the latter number should be compared with the number of conscripts declared fit for service, inasmuch as the persons exempt from service on account of diseases and infirmities are not measured at all.

M. Boudin and M. Broca both concurred in the opinion expressed by Dr. Guibert.

Plaster Casts.—M. Broca, in presenting to the society six plaster casts of crania, which he had ordered for the purpose of facilitating

exchanges with other societies, called attention to errors which might arise as regards measurement. That plaster expanded was well-known, but he was not aware that it took place to the extent which he found to be the case. In comparing the six casts with the six original crania he found the former considerably larger than the latter. All the diameters had increased, the antero-posterior had, for instance, become longer by from two to three millimeters. And what is worse, the increase of volume is not proportionate to the volume of the crania; he suggested, therefore, that when casts were sent they should be accompanied by a table showing the principal dimensions of the original crania; this he had just done in the case of some casts sent to the London Anthropological Society.

M. Gratiolet said that the expansion varied according to the degree of purity and hardness of the plaster, he would, therefore, ask whether the result indicated by M. Broca may not fairly be attributed to the inexperience of the moulder.

M. Broca replied that the casts had been made by M. Talrich, the modeller to the faculty of medicine; the casts were otherwise excellent; he thinks, therefore, that the dilatation had taken place after the casts had been taken from the moulds. At all events, whether the differences subsisting between the models and the casts depend on the skill of the moulder or not, the casts should always be accompanied with a table of the measurements of the original crania.

M. de Quatrefages then read a paper "*On the tradition of the Tiguex concerning the sacred tree of the Mexicans.*"

The transversalis pedis in the foot of the Gorilla.—Report by M. Alix on a treatise sent by Mr. Thomson, which had previously been submitted to the Medical Society of Victoria (Australia).

Riolan gave the name of *transversus pedis*, *transversalis pedis* to that muscle in the foot of man described by Cruveilhier as the transverse abductor of the big toe, and which Chaussier called the transversal metatarso-subphalangean of the great toe. Tyson said that this muscle did not exist in the chimpanzee, an error which seems inexplicable, as no minute examination is requisite to find it. Duvernoy (Arch. du Museum), whose treatise Mr. Thomson inadvertently ascribes to Is. Geoffroy Saint Hilaire, mentions its presence in the gorilla genus; and Mr. Thomson, who does not appear himself to have dissected a gorilla, quotes this authority in support of his proposition. This fact being established, he draws two inferences. First, that Tyson in his enumeration of the differences between man and monkey has given one point of difference too much, in which we agree with him. The second inference which Mr. Thomson draws from the existence of this muscle, is that it becomes an argument against those who maintain that man

cannot possibly be the descendant of the gorilla. His own words are "I may, nevertheless, take the opportunity of observing that the theory which would deny the possibility of a derivative origin of a higher order of beings from the gorilla must be erroneous in as far as it is deduced from the alleged absence of the transversus pedis muscle."

We cannot in this respect agree with Mr. Thomson. One of the great principles of zoological classification, is the subordination of characters. Now the absence of transversus pedis would in our view be but an insignificant point in presence of other differences of another character which distinguish the foot of man from that of the ape. But this muscle exists in both in order to show at once the unity of plan which unites them and the variations which separate them.

It might be easy to conceive the foot of man deprived of the transverse abductor, this little muscle, as Cruveilhier calls it; an anatomist might even consider it an accessory muscle.

Such is not the case with apes, whose big toes are greatly divergent, so that the foot becomes a prehensile organ. The transverse abductor in them is wider, whilst when relaxed it presents greater length at the level of the first inter-metatarsian space, when it assumes the aspect of the abductor pollicis of the hand. In monkeys it really becomes a muscle of the big toe, and its absence would in them be less conceivable than in man.

In man there exists another abductor of the big toe—this is the oblique abductor of Cruveilhier. This starts from the tarsus and the posterior portion of the metatarsus, and takes an oblique inward direction towards the great toe; it is manifestly separated from the transverse abductor, a triangular space being left between these two muscles. In apes this space is filled up, the muscular fibres are continuous, and at first sight they might be looked upon as forming a single muscle; but in dissection it is seen that the oblique abductor reaches and covers the inferior portion of the transversus. It is probable that Tyson has included the whole mass in the oblique abductor. . . . In these muscular dispositions it is impossible not to recognise organs, constructed, it is true, of the same materials, but adapted to different ends, adaptations which cannot be the results of successive metamorphoses, not acquired but pre-ordained, and that between the disposition which characterises man and that which characterises the ape there obtains an impassable gulf.

M. Perier read a memoir "on Ethnic Intermixture."

The meeting then adjourned.

(To be continued.)

Miscellanea Anthropologica.

The Memoirs of the Anthropological Society.—An article appeared in the December number of our contemporary the *Ethnological Journal*, purporting to give a review of the Memoirs of the Anthropological Society of London. We desire to refrain from expressing any opinions on such a performance. Mr. E. Sellon, the author of one of the papers published in this volume of *Memoirs*, writes to us thus:—"The attack is so much more in the spirit of a Calvinistic preacher and Puritan, than either a scientific man or a polite scholar, and betrays such a profound ignorance of the subject under review, that it would be lost labour for me to endeavour to dispel the mephitic vapours of intolerant cant, prejudice, and conventionalism displayed in that article."

Mr. W. T. Pritchard also writes:—

"Referring especially to the comments upon my own papers, let me point out certain misrepresentations the reviewer has made, and certain 'delusions' he has advanced.

"He remarks, respecting my first paper, that 'it is the result of fifteen years residence in what is popularly called the *Fiji group* of the South Seas; but it gives also an account of the two nearest groups to *them*—the Tongan Islands, and the Samoon Islands.' Now, if the reviewer had read carefully, he would have seen it clearly stated that I simply collate the results of my personal observations while *residing amongst the islanders of the Pacific*, not in the Fiji group only, during a period of fifteen years. I wrote of groups where I have personally resided, whose people, languages, manners, and customs, I know intimately; and I refrained from offering a mere compilation from the observations of others, or giving stories collected during only a passing visit at other groups.

"The reviewer observes that, 'so long as I confine myself to what I have seen with my own eyes, I am both graphic and accurate.' I thank him for his testimony; but, to know whether it is worth anything, I would ask, has he himself visited the islands? If not, how comes he to *know* the description is 'accurate', and to be able to give so decided a testimony on the subject? That it is 'accurate' I know, and those know who *have visited* the islands. But, judging from the reviewer's subsequent intimation, that only a 'few words' of the Malayan have 'been detected in their languages', I am led to suspect he writes on the subject without any competent knowledge of the South Sea Islanders.

"On the subject of the *origin* of the islanders in question, the reviewer seems, indeed, wholly at sea. I beg him to read my paper again more carefully, and to note that I merely *state* my opinion of their origin, and then relate certain traditions and facts. But whether or not it be a 'delusion to trace the fairer races of the Polynesian Islands to the Malays, on the slender evidence of a few words having been detected in their languages', as the reviewer voluntarily alleges,

let me call in the authority of one whose opinion will certainly carry as much weight as that of the reviewer. Mr. Crawford, in his *Indian Archipelago*, says, 'Interesting hints are supplied to us from the collation of language.' In vol. ii, page 78, speaking of the 'great Polynesian language,' he distinctly says it is a 'language which extends its influence from Madagascar to New Guinea and the *South Sea Islands*,' quoting at page 90 from the *Tongan dialect* (amongst others), to prove his position. And then at page 93, he adds, 'The Polynesian language can be traced only as it is scattered over a thousand living dialects.'

"It happens, however, that the example instanced by Mr. Crawford is mis-spelt by him, and does not mean in the Tongan dialect what he states it does. He gives the words *wulu* or *bulu* as the Tongan for *hair*. The letter *w* does not even exist in Tongan; and *bulu* is a *gum* used for caulking canoes; it is also the *husk of the cocoa-nut*. In Tonga, *ulu* is the *head*, as totally distinct from the *hair*. And in this sense, *ulu* becomes the root of many composite words, e. g., *ulu-ua*, *uluhina*, *uluhi*, &c., &c. In all these instances the idea is of the *head altogether*, as distinct from the *hair alone*. The word for *hair* is *lou-ulu*, and conveys the idea of the *hair of the head only*, as quite distinct from the head (*ulu*). For hair on any other part of the body, the word is *fulufulu*; by adding *buaka*, or *moa*, &c., it comes to mean the *hairs of a pig*, or the *feathers of a fowl*, &c. In Samoan, the head is *ulu*; hair of the head, *lau-ulu*; hair on any other part of the body, *fulu* or *fulufulu*; on one particular part, *fugu* (=fungu).

"In Tahitian, *uru* is limited to the *skull only* (as also *apuroro*); *upoo*, the head (as *ulu* in Tongan and Samoan); *rouru*, the hair of the head; *huruhuru*, the hair of any other part of the body (also *hete-hete*). In each dialect the word for hair of the body, as distinct from the hair of the head, comes to mean the hair of any other animal, or the feathers of fowls, by the addition of the name of the animal or fowl. In Fijian, the head is *ulu*, or *uluna*; the hair of the head, *drau-ni-uluna* (literally *leaves of the head*); the hair on any other part of the body, *celua* (=thelua); hair on one particular part, *vulua*; the hair of any animal other than man, *vutika*, or *vutika-ni-manumanu*; and when applied to birds, this also means feathers.

"Mr. Crawford gives *bulu* as the Malayan for *hair*. I should like to compare notes with him on this word, as well as on others which may occur in the East and in the Pacific, and trace them out together. Why the origin of the 'fairer races of Polynesia' is still so obscure, is simply because men (like our reviewer) who know nothing of the subject, write nonsense, while those whose knowledge, if brought together, would elucidate the question, keep their knowledge for the most part to themselves. This is to be regretted.

"I must, therefore, take exception to the reviewer's 'dogmatism,' as well as to his delusion, to say nothing of his grammar. And, supported by the great authority quoted above, not to name Pickering and others, I think I may safely apply his own words to himself, and tell him that 'he blunders like a mere innocent' when he says 'The truth is, there is no more ground for ascribing a foreign origin to the inhabitants of the isles of the Pacific than to the black swans of Australia.' I am

almost inclined to think, since the 'delusion' is so 'dogmatically' thrust into his comments, that 'the truth is, the reviewer took occasion of my paper to make a hit at Mr. Crawford's opinions rather than at mine,' as it is Mr. Crawford who uses the 'slender evidence,' impugned.

Professor Phillips and the British Association.—We have received a communication from Professor Phillips requesting us to insert the word "council" for the word "officer" in the report of his speech at the general committee of the British Association (see vol. iii, p. 361, line 24th from top.)

We have much pleasure in calling attention to this wish of Professor Phillips, as it removes the inconsistency of which we complained and to which we called attention: that gentleman not being at the time an "officer" of the Association. The paragraph will now read that the privilege of introducing a motion affecting all future legislation without giving the least notice of such intention, "had never yet been denied to the council of the Association." We regret to perceive that this correction does not at all lessen the inexpediency (to use no stronger expression) of such legislation. We trust that Professor Phillips will see the expediency of withdrawing the resolution so hurriedly passed last year, and allow the British Association to be governed, as heretofore, by the General Committee.

We understand that the following are the contemplated arrangements for the reading of papers before the Anthropological Society of London during the next quarter.

On January 16th, J. Meyer Harris, Esq., "On the Gallinas, a tribe of Sierra Leone," and G. W. Marshall, Esq., LL.M., "On Genealogy in its relation with Anthropology." On February 6th, H. J. C. Beavan, Esq., Hon. Sec. A.S.L., "Notes on the People inhabiting Spain;" Hyde Clarke, Esq., LL.D., "On Moravian Wallachia," and "Observations on the Materials for Anthropology at Smyrna." On February 20th, L. O. Pike, Esq., M.A., "On the Psychical Characteristics of the English People." On March 6th, W. H. Wesley, Esq., "On the Iconography of the Skull;" A. Higgins, Esq., "On the Orthographic Delineation of the Skull;" C. Carter Blake, Esq., "On a Skull from Louth," and Dr. Paul Broca, "On a New Goniometer." On March 20th, George Petrie, Esq., "On the Pre-historic Antiquities of Orkney," and Joseph Anderson, Esq., "Report on the Ancient Remains of Caithness."

The anniversary of the Anthropological Society will be held on Tuesday, January 2, at four o'clock. Afterwards, the Fellows of the Society and their friends will celebrate their third anniversary by dining together at St. James's Hall.

The Anthropological Society of Madrid held its first ordinary meeting on Sunday, the 17th of December last. The outbreak of cholera prevented their meeting before; all the schools and societies being closed by order of the Government. This Society already numbers three hundred members. In our next issue we shall give an account

of the papers read before this Society. Don Matias Serrano is the president, D. S. Castro the vice-president, and Don F. Delgado Jugo the secretary.

The Antiquity of Man and Pre-Historic Times.—We have received from Sir Charles Lyell proofs of some pages of the new edition of his "Antiquity of Man," which relate to a matter touched upon in a review of Sir John Lubbock's "Pre-historic Times," in the October number of the *Anthropological Review*, p. 388. The following remarks are made by Sir C. Lyell at the close of his preface, after mention of the authorities on whom he principally relied in describing the Danish shell-mounds:—"It was impossible for me, with the aid of such able investigators, to overlook any of the most striking discoveries and conclusions which had been made before 1860; but I gladly took advantage of the later numbers of Keller's 'Pfahlbauten,' and of Mr. Lubbock's 'Memoir on the Danish Kjökkenmöddings,' printed in the October number of the 'Natural History Review' for 1861, to improve the wording, and occasionally the subject-matter, of certain passages for which M. Morlot had already supplied the principal data. I had no space, without disturbing my type, for entering on a single new field of inquiry, or any new deductions furnished by Messrs. Keller, Lubbock, or other writers. Had I attempted to do justice to them, or to any authors of later date than the summer of 1860, I must have expanded the plan of my whole book, and seriously delayed the publication of the first edition, as well as of the subsequent issues." In a note later on, mention is also made of Sir J. Lubbock's paper in the "Natural History Review" for October 1861:—"Mr. John Lubbock published in the October number of the 'Natural History Review,' 1861, p. 489, an able paper on the Danish 'shell-mounds,' in which he has described the results of a recent visit to Denmark, made by him in company with Mr. Busk."

The facts of the case may be profitably stated to show how such misunderstandings may arise. It seems that Sir Charles Lyell drew up his account before Sir J. Lubbock's paper in the "Natural History Review" was written, and when it appeared he inserted a note to the effect that he had been unable to make use of it. In giving the finishing touches to his proofs, however, he afterwards did make use of it to some slight extent, but inadvertently left standing the note which had now become incorrect. Upon this, Sir J. Lubbock rejoined in the preface to his "Pre-historic Times," in the passage our review commented upon. But we understand that on becoming aware of the real state of the case, he had this note cancelled, so that only the first few copies of his work were issued with it.

Our review was written with no wish to take the side of either of the two eminent scientific men who had unfortunately come into collision, but spoke in the interest of the readers of both, and we are happy to find that the whole discussion arose out of a mere oversight, and has been set right in a friendly spirit.

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RACE IN LEGISLATION AND POLITICAL ECONOMY.

“Of all vulgar modes of escaping from the consideration of the effect of social and moral influences on the human mind, the most vulgar is that of attributing the diversities of conduct and character to inherent natural differences.”—MILL, *Principles of Political Economy*.

It is a most mistaken idea that Anthropology is purely speculative and abstract. It is, on the contrary, more intimately related than any other branch of science to the sympathies of humanity, and, we may add, the utilities and requirements of society. It enters into every question connected with religion, government, commerce, and culture, which are all more or less affected by racial endowment and proclivity. This, however, is a comparatively new idea, on which the statesman and the legislator are yet scarcely prepared to act, and to which the theologian manifests not merely indifference, but repugnance. Practically, indeed, the element of race has not yet obtained recognition, as one of the underlying conditions and modifying forms of civilisation. We must not blame the world for this. Scientific Anthropology is a thing of yesterday; nor is the study of it yet sufficiently advanced to justify its believers in claiming the reverent attention of duly cultured minds to their hastily formed conclusions. They must be content to wait and work, sowing the seed of truth to-day, that mankind may reap its golden harvest on some far off to-morrow. In the meantime, however, its advocates will only be performing a proper duty in occasionally enforcing its claims on the attention of our more advanced thinkers, preparatory, let us trust, to their full recognition by the general voice of civilised society.

In this endeavour to commend Anthropology to more general acceptance, we must not hide from ourselves that two great schools are, on principle, decidedly opposed to our pretensions. These two

influential parties, while differing widely from each other on many other points, at least cordially agree in discarding and even denouncing the truths of Anthropology. They do so because these truths are directly opposed to their cardinal principle of absolute and original equality among mankind. The parties to which we refer are the orthodox, and more especially the evangelical body, in religion, and the ultra-liberal and democratic party in politics. The former proceed on the traditions of Eden and the Flood, and on the assertion, that of one blood God made all the nations of the earth; the latter base their notions on certain metaphysical assumptions and abstract ideas of political right and social justice, as innocent of scientific data, that is, of the fact as it is in nature, as the wildest of the theological figments which set Exeter Hall in periodical commotion, at the never-failing anniversaries of missionary enterprise.

We fear that it is in vain to argue with the religious portion of our opponents. People whose opinions are based on dogma possess a fortress not easily assailed by reason. They know in what they believe, and from the vantage ground of a supernatural revelation can afford to laugh at the indications of history and the deductions of science. They are persuaded themselves, and they have persuaded a very large section of society, that one religion, their own, will do for all mankind to the end of time. And society believes them, or, at all events, is too ignorant or too busy to oppose this tremendous assumption. And so we subscribe a million a year, and send out good men and true into all climes, it may be truly said, in denial of the past and defiance of the present.

Our political opponents are not exactly persons of this stamp. They do not profess any particular faith in written records. They are not prepared to enthrone an eastern myth on the denial of modern science. They do not intentionally prefer dogma to fact. Opposed to an hereditary aristocracy in the body politic, they are prone to deny the wider and more-enduring aristocracy of race. Believers in the omnipotence of circumstances, they refuse to recognise the aids or the obstacles of inherent endowment. To them, humanity is one from the educational stand point, as it is also one to the theologians from the creational stand point. The latter assert that a Negro or a Mongol will make as good a Christian as the most finely-developed Caucasian, and the former equally affirm that, with proper training, he will make as good a citizen, as skilful a craftsman, as fine an artist, and as able a poet or philosopher. We do not mean to say that the latter put their conclusions exactly into these words. They dare not. The plain practical good sense of society would prove too much for them were they to do so. But their assertions, as far as they mean

anything, imply this, and are indeed mere idle rhodomontade, if they do not.

And here, perhaps some of our Anthropological friends may be of opinion, that in seriously opposing such absurdities, we are guilty of the folly of the worthy Knight of La Mancha, when he ran a tilt at the windmills. But in truth these absurdities, from their wide acceptance, are gradually becoming productive of very grave consequences. The stupendous claims of the Romish hierarchy to the sacerdotal supremacy of the world, are based on the prior assumption of a possible unity among all nations in religious belief and practice, and on the mundane and unending mission of Papal Christianity. The atrocities of the Spaniards in Peru and Mexico were but the dark conclusions, wrought out by the logic of events, from these startling premises. The wars of the reformation were humanity's assertion of its right to differ,—were, in short, the counter-proclamation of the Teuton in opposition to the claims of the Roman. The watchwords of modern revolution, "liberty, equality and fraternity," more especially the two latter, together with all the absurdities and impossibilities of communism, are but the sinister yet legitimate progeny of the principle of primal and organic equality. The mischief of such views, indeed, is not and cannot be confined to the sphere of speculation. They of necessity invade the field of action, where thought ultimates itself in deeds. They influence most of the colonial enterprises of modern times ; and they were at the foundation of the recent civil war in America, and underlie not only the claim of the freedmen to the suffrage, but all the contemplated horrors and abominations of miscegenation.

We have, in a previous paper on Race in History, already touched on some of the errors of one of the schools to which we have been alluding, that of the Political Economists and Legislative Reformers. But, in doing so, we confined our remarks almost wholly to the works of one of the youngest of its disciples, the historian Buckle. But he was only an echo of his masters, Jeremy Bentham and John Stuart Mill, as they are but a continuation of Helvetius and the French Encyclopedists, who were again but a far-off reverberation of Democritus and Epicurus. There is a terrible tyranny in ideas. Your principles, even though they be the most fallacious assumptions, will ultimate themselves in legitimate conclusions sooner or later. John Stuart Mill cannot help claiming the suffrage for the Negro—and the woman. Such conclusions are the inevitable result of the premises whence he started. And had he paused at such a *reductio ad absurdum*, his school would not. That school, as we have said, dates from the remotest antiquity. The omnipotence of circumstances

and the natal equality of mankind are not new doctrines. They are simply materialism, and the philosophy of the external ultimated. He who starts from atoms, guided by chance, must end in absolute democracy, that is, in racial and individual equality. It is simply the completion of the circle, from chaos to chaos.

It need scarcely be said that such a school can only exist in words or upon paper, for it is in direct contradiction to fact. Nature is a grand hierarchy of cosmic and telluric organisms. Her suns rule their subordinate planets, surrounded again by their subject satellites. The vegetable and animal kingdoms are a succession of organic stages, separated, as Swedenborg would say, by "discrete degrees." While at the very apex of this pyramid of form and function, we find regal man, the virtual king of the earthly sphere. And are we to suppose that this hierarchical arrangement ceases here; that there are no innate and hereditarily transmissible diversities among men? Reason as well as fact revolts at so absurd a conclusion. Had we, from our limited geographical range, experience only of one race, we might most legitimately conclude there were others in the distance,—a conclusion now adequately substantiated by geographical discovery. But John Stuart Mill cannot see this. His intellectual prepossessions are too strong for such a grasp of veracity. His mind is so filled with the *idola* of Codification and Political Economy, that he cannot see the simple yet unspeakably important facts of Anthropology.

Let not these remarks on Mr. Mill be misunderstood. He is the last man to intentionally maintain an untruth. Privileged to own one of the clearest and most logically constituted heads, and we may add, one of the noblest hearts in Christendom, he unites the deductive power of the race whence he descends, and we may add, of the school to which he belongs, with somewhat of their infirmity, in the too facile rejection or assumption of premises. No man marches more carefully from the major to the minor; the process, in such hands at least, is unerring. But, alas for the major. It may be the sublimest of truths, an axiom on which the universe could repose unshaken for eternity, or, as in the present case, a fallacy so transparent, that the simplest cabin-boy, on his homeward voyage, would see its infantile absurdity.

The rejection of truth is perilous, perhaps we might say fatal, to all men. But it must prove especially so to the priesthood of intellect,—to those sages and philosophers, who as legislators, political economists, historians, and men of science, endeavour to explain the truth and the right to others; for when the shepherds go astray, it is no wonder that the flock generally follow. To write of men, and to legislate for men, while rejecting the science of man, is certainly a most extra-

ordinary and by no means commendable procedure. And yet it was that of Jeremy Bentham and Thomas Henry Buckle, and is that of John Stuart Mill. The first drew up a code, or shall we say, laid down the principles of codification in the abstract—ignoring diversity of race. The second wrote his otherwise admirable history, and the last has given us the principles of Political Economy, together with sundry treatises on Liberty and Representative Government, not only ignoring, but directly and almost offensively denying the great truth of racial diversity. Ignoring the fact in nature, that men differ in the relative proportion of their passions, affections, sentiments and faculties. Ignoring what is patent, not only to the Anthropologist, but to the soldier, the sailor, and the man of business, that the races of mankind differ in the force of their propensities, in the strength of their sympathies, in the power of their principles, in the accuracy of their perceptions, and in the clearness and the vigour of their thoughts. Ignoring not only the conclusions of the man of science, but the practical experience of all widely-travelled persons, that there are distinctly marked Ethnic diversities, in virtue of which the grander divisions of mankind differ in the persistence of their will, in their power to resist temptation, in their susceptibility to impulse, in their ability for work, and in their innate capacity for literature, science and art. And ignoring therefore what the experience of ages has demonstrated, and what the true wisdom of the present would dictate, the necessity for a diversity of religion and government corresponding to this diversity of race, whereby the formal institutions of a people are brought into harmony with their mental constitution.

These are severe remarks. Let not their spirit be misunderstood. It is because we respect their advocates, that we are so harsh in our judgment of the doctrines. Error is formidable in proportion to the ability, and, we may add, the virtue of those who hold it. The fallacies of men like Bentham, Mill, and Buckle, cannot be harmless. Such minds cast the halo of their glory around even their grossest errors, and just in proportion as we revere them for the good which they have accomplished, must we be stern in our opposition to the evil of which they are unintentionally the authors. Of such it may be truly said, "if their light be darkness, how great is that darkness!" If their views be founded on error, how widely diffused must that error be! It is the very greatness of the men that necessitates our more serious antagonism to their fallacies. They are too powerful, too influential, to allow us to pass over their mistakes in silence. The voice which has been oracular for the truth, becomes doubly formidable when employed as the trumpet-blast of error.

In the history of Philosophy, in so far as we can be said to possess

anything deserving of the name, nothing is more remarkable than the power of the schools. Like religious sects, they take the individual helplessly captive, and lead him whithersoever they will. They close his eyes to one phase of truth, and they open them to another. Nor does any amount of talent or attainment appear to constitute an adequate safeguard against this despotism. It only makes the individual a more or less apt instrument for the acceptance and promulgation of their doctrines. He is obviously the organ of a greater power, that sees beyond him, and uses him for a grander purpose, than anything of which he is conscious. This is the case with Mr. Mill. It was equally so with Jeremy Bentham. They are the organs of negation. In reality, the champions of matter *versus* spirit. It is their vocation to proclaim the weight and value of *quantity* as opposed to quality. They ignore the ONE. They enthrone the *many*. They do not stand alone in this. They have not only a large following, but they have had many able precursors, and they have many powerful coadjutors. They represent the spirit of the age. Their works are simply Protestantism, logically ultimated in the political sphere. Fourier went beyond them, and carried it into the social, where it eventuated in communism. Let it not be supposed that in saying this, we pass a judgment of condemnation upon these truly great and deservedly illustrious men. Their cause is perfectly legitimate. It represents one of the two great poles of universal truth. But it is only one pole, and that not the *positive*. These are rather daring assertions. We know it, and must now proceed to their confirmation.

It was a grand saying, that all minds are either Platonic or Aristotelean, subjective or objective, spiritual or material in their essential character and tendencies. This, however, is only saying that men must obey the laws of polarity, the most gifted and earnest being generally the most strongly pronounced in their proclivities. But it is not only men as individuals, but men collectively, who have to obey these laws, and so manifest the spirit of the ages. In a sense, as was shown in some former numbers of this Journal, the entire movement of humanity, in the North-western march of civilisation throughout the historic period, was, intellectually speaking, a descent from the highly spiritualised theosophy of the Orient to the thoroughly-materialised science of the Occident. Now it is this movement in its ultimates, which is represented by Mr. Mill. As we have said, it is a great and legitimate movement, and even in its extremes, deserves to have such a champion to stand up for it. As the protest of reason against dogma in religion, as the testimony of *à posteriori* fact against *à priori* assumption in philosophy, and as the claim of the rights of the many against the tyranny of the few in

politics, it was a great and noble cause, deserving of all honour and worthy of all success. But when, overstepping these boundaries, it proceeds with its political logic to the denial of inconvenient facts, it is no longer a legitimate movement, but, on the contrary, one demanding strenuous opposition, and deserving utter and shameful defeat. It has reached this stage in the hands of Mr. Mill and his coadjutors. They deny the facts of race, and hence our opposition.

We thus see that this great movement is in conflict with itself. Its several sections are no longer in harmony with each other. Its religion and its politics are at war with its science. We have arrived at the beginning of the end. In the fervour of religious propagandism, it demands one faith for all mankind. And in its enthusiasm for liberty, it proclaims that all men may be politically free, when they have been adequately educated. In attempting to maintain these stupendous assumptions, it does not condescend to investigate observed facts; but meets the testimony of travellers, and the conclusions of Anthropologists by the annunciation of abstract principles, in reality by a process of *a priori* reasoning, as opposed to the evidence of *a posteriori* experience. By the dread compulsion of a false position, it is driven to the desperate alternative of ignoring nature and denying phenomena. It does so, because nature and her phenomena are opposed to its conclusions. Again, we admit these are very severe remarks. But they only express the simple truth, and hence our reason for their publication.

We make our appeal to nature. Let us hear what she has to say. The earth, at her different zones of latitude and longitude, or shall we say in other language, on her several areas, has specially characterised types, vegetable and animal, bestial and human. These specialities are obviously not accidental. They are transmissible and enduring, and far antedate all history. The law of distribution is yet beyond us; but it is evident that there is such a law, for we see its effects. And we see them in the human sphere as distinctly as in any other. The men of one Ethnic area are not to be confounded with the men of another. Nor are these distinctions simply physical and organic, they extend also to habits and capacities. We know that this is denied by Mr. Mill and his school. But such denial necessitates the rejection of history as well as of science; for history is conclusive as to racial diversity, its annals being in truth but a record of the result of that diversity. For example, to affirm that a Negro is in every way as good a man as an European, is to deny the historic testimony of five thousand years, seeing that in all that time no Negro nation has ever, either with or without assistance, reached the civilisation, again and again achieved in the great centres of Caucasian

culture. To say after this that Negro communities *might* have done so, is simply to beg the question, and take for granted the very thing in dispute. They have not done so, even with the tuition of Egypt and the example of Carthage; and if our inquiry is to be conducted on *à posteriori* principles of investigation, we must accept the fact of their non-civilisation as in so far conclusive of their incapacity. They have been tried and found wanting. But this historic evidence is corroborated by their organic inferiority. The comparative anatomist agrees with the historian in placing them on a lower level than the European. And the phrenologist agrees with the comparative anatomist. We know that Mr. Mill does not believe in phrenology, nor we presume in physiognomy. He cannot. Either the one or the other would dissipate his day-dream of racial equality within an hour of its acceptance. The inferior character of the Negro is as distinctly stamped on his organisation as on his destiny, and only minds blinded by the *idola* of preconceived ideas could fail to see the one as well as the other, and to find in both unmistakeable evidence of the Negro's lower position in the scale of being.

Similar remarks may be made on the Mongolian races of Eastern Asia. Their structure, while superior to that of the Negro, is inferior to that of the European. It is less developed. As the type of the Negro is foetal, that of the Mongol is infantile. And in strict accordance with this we find that their government, literature and art are infantile also. They are beardless children, whose life is a task, and whose chief virtue consists in unquestioning obedience. Were Mr. Mill an anthropologist, we might point out to him the very important physiological fact, that an immemorial civilisation has utterly failed to Caucasianise either the Chinese or Japanese, they being still as essentially Mongolian as the rudest nomad of the northern steppes. But he would place no value on such a fact. It could have no significance from his standpoint. Form and function are to him matters of as much indifference as colour, which he avowedly ignores. He cannot understand why a Chinaman, under adequately favourable circumstances, should not become as good a sculptor as Phidias, or as inspired a poet as Shakspeare. And the reason why he cannot understand this is, that he ignores the racial element in humanity; in other words, he allows his *preconceived* idea of aboriginal unity and essential equality to dominate all structural evidence of diversity, and all historical evidence of inequality. This we know is equivalent to saying that his mind is not open to the truth when nature is the witness, and her testimony is opposed to his cherished ideas and favourite speculations. A severe sentence to pass on England's greatest living logician. But it is out of his own mouth we convict him. It is on the evidence afforded by his own works that we pronounce his condemnation.

Now let it be distinctly understood that we say this of Mr. Mill only in his representative character, as the chief of a rather extreme school of political economists. As an individual, no living man has a greater regard for veracity. Even in his gravest errors he is perfectly honest, and when blinded to the truth by his deepest prejudices, feels fully persuaded that he is simply consistent in maintaining a principle. Moreover, it should be remembered that he does not stand alone in ignoring racial diversity. His views, however erroneous, are not individual crotchets, but the well considered and avowed opinions of a large and influential school of thinkers, and as such deserving of the most respectful consideration, even from anthropologists, who so clearly see the egregious fallacies on which they rest. We must not blame men for differing from us. It is our business to provide them with such evidence, as shall suffice to produce a conviction of the truth, and if we fail in this, the fault is not theirs but ours.

What then is the gravamen of our charge against Mr. Mill and his friends? And we reply the unwarranted application of experiences, obtained only from the European race, to the whole of humanity. And as an accompaniment of this, the substitution of art in the place of nature in the process of legislation. As already remarked, these errors are due to the preponderance of abstract ideas over concrete experience. They result from that process of hasty and incautious generalisation, against which Francis of Verulam especially warned his followers. Because certain kinds of government, and certain processes in legislation, have proved successful in Europe, it is at once concluded, that they are abstractedly right and good, and should with all convenient speed be applied to every other family of man. And as these governments are representative and this legislation has been senatorial, it is supposed that such forms and modes of transacting matters gubernatorial, must be the acme of perfection in the way of example, and to which, therefore, the rule of all peoples should be made to gradually approximate, the only consideration being, the kind and degree of culture they may have previously undergone in the way of preparation. Of innate fitness or unfitness, of organic aptitude or inaptitude, these sages of the closet know nothing. Of hereditarily transmissible types of body and mind they are happily ignorant. For ineradicable proclivities, they have a sovereign contempt. "*Racial specialities*" they hold to be a figment of the anthropological imagination, and for which they would substitute "*educational differences*". To their view, races, or as they would say, nations are what circumstances have made them, and consequently alter the circumstances, and in due time you change the race! As already remarked, the logic is sound, but the premises are faulty. They are so, because they fail to take an important element

of the problem into account, we mean the subject-matter on which the circumstances are supposed to operate.

Let us see indeed for what such logic would suffice, were the premises obtained from another ethnic area. Asia has been immemorially the seat of despotism. Its idea of authority is essentially unitary. Its codes, in so far as they have grown, are the cumulative result of the successive edicts of absolute sovereigns. But in their grand outlines and fundamental principles, they were the products of a single legislator, some divinely inspired Menu, Moses, or Mohammed, who derived his authority not from without but within, not from the people but from God, and whose short but effective preamble was "thus saith the Lord." Now whether under Assyrian or Saracen, this was doubtless esteemed the better way. But conceive of its application to Greek, or Roman, or Teuton, above all to these same Anglo-Saxon free-thinking political economists themselves! Again we must remind Mr. Mill that there is a religion and a government, a literature and an art, which is specially adapted not only to the outward circumstances but to the inherent and innate qualities of each of the grander divisions of mankind.

In these illustrations we have hitherto purposely omitted any allusion to the more savage races, all quite susceptible of civilisation according to the principles of Mr. Mill, who will not admit that the Australian, the Andaman islander, and the Hottentot labour under any *inherent* incapacity for attaining to the highest culture of ancient Greece or modern Europe! Their present inferiority is an accident, due to a combination of unfavourable circumstances. They might have been the foremost men of all this world but for certain untoward influences. To say anything about the Andaman head and the Hottentot brain is only "a vulgar mode of escaping from the consideration of the effect of *social* and *moral* influences on the human mind!" Now anthropologists do not deny the power of social and moral influences, but they affirm that in conjunction with these the organic conditions and the transmissible mental constitution of their human subject-matter must also be taken into the account. This Mr. Mill denies, and hence his errors, both theoretical and practical, which we must now proceed to examine in detail.

In his otherwise excellent treatise on "Representative Government," Mr. Mill speaks of savage people and civilised people, and of the means by which the former may be gradually raised to the condition of the latter. Of the possibility of this process he has not the smallest misgiving. The idea that there are *savage races*, adapted by structure and temperament, by habit of body and constitution of mind for the savage state, has obviously never occurred to him. He thinks a savage tribe

is like an ignorant individual, in want only of education, simply that and nothing more. It is the same with his idea of civilised races. He clearly thinks they might be absolutely savage. Taking the past upon trust, like a true closet-scholar putting unquestioning faith in his *books*, he closes his eyes to the present. Having read certain vague traditions about the ancestors of the Greeks and Romans, French and English having once been in a savage state, it has never occurred to him to test the accuracy of this statement, by looking round upon the world of to-day, to see if there be such a phenomenon as a really savage people of Caucasian type. We can readily understand that such a procedure would be in opposition to all his established habitudes of mind, and of this we do not complain. Only we say that such a thinker will prove a very unsafe guide as to the government of any race save his own.

In the same work he speaks of the arrestment of certain civilised nations at the stage of a paternal despotism, instancing the Egyptians and Chinese, with whom he contrasts the far more free and progressive Jews. The stagnation of the former he attributes to the strength of their institutions, which would not break down to permit of national growth, while the unorganised institution of the prophets among the latter people, by ensuring a greater degree of liberty, permitted also of more effective progress. All which is, no doubt, quite true. But then it is not the whole truth, only that, indeed, which lies on the surface. It does not tell us *why* the institutions of the one people were so restrictive and those of the other so comparatively elastic. This, as every anthropologist knows, must be sought in diversity of race—in the ethnic fact that the Chinese are a Mongolic people, and that the higher castes of Egypt were clogged by a numerically preponderant mass of African aborigines; while the Jews, and we may add the Phœnicians, were the most vigorously constituted of all the Asiatic Caucasians, and, indeed, present so many European elements in their national character, that the perfect purity of their oriental descent is still open to considerable suspicion. But of all this Mr. Mill and his school know nothing, and want to know nothing; and while obtaining full credit with the yet more ignorant public for being very profound, are in point of fact childishly superficial in their habitual treatment of this and all similar topics. They stop short at effects, and mistaking these for causes, think they have exhausted a subject, of which in truth they have scarcely broken the surface.

Mr. Mill's rejection of race, like the errors of all decisive minds, is thorough. It pervades his entire system. Hence he treats even of slavery without an allusion to this important element. Thus he speaks of the facility with which slaves, when manumitted, assumed the position and discharged the duties of freemen among the Greeks and

Romans, which he attributes to the existence of an industrious class who were neither slaves or slave-owners. Now there is no doubt that this was a very favourable circumstance, but what would it have availed if the freedmen had differed from their owners and the industrious middle-class, as the Negroes of the States do from the Caucasian population around them? The learned freedmen of Rome were often, racially speaking, of as good blood as their masters. And there is no doubt that even the Helots did not differ from the Spartans more than the Anglo-Saxons from the Normans. Under such circumstances, the individual emancipation of superior slaves, is perfectly easy, nor is there the least wonder that the well-educated among them at once assumed a respectable and recognised position in society. Nor with such conditions is there ultimately any insuperable difficulty in the emancipation of the whole class, either gradually, as throughout south-western Europe during the middle ages, or even suddenly as in Russia and Hungary in our own day, by an imperial edict or by a senatorial decree. The absorption of such liberated bondsmen, into the class of freemen, is comparatively easy, because their inferiority is simply social and not organic. But it is quite otherwise, where the inferiority is stamped upon the organisation, and where consequently the freedman and his children's children to the remotest generation, bear indelible traces of their descent from the servile caste.

Now again we say that the deservedly illustrious name of John Stuart Mill, ought not to cover the grave errors into which he has been led on this subject by his unwise rejection of the racial element, a rejection which by enabling him to speak of slavery in the abstract, has permitted him to confound the purely domestic institution of the better days of Greece and Rome, with the grosser chatteldom of negro slavery in our own times. This, for instance, is his portraiture of the slave proper :—

“A slave properly so called, is a being who has not learnt to help himself. He is, no doubt, one step in advance of the savage. He has not the first lesson of political society still to acquire. He has learnt to obey. But what he obeys is only a direct command. It is the characteristic of *born* slaves to be incapable of conforming their conduct to a rule or law. They can only do what they are ordered, and only when they are ordered to do it. If a man whom they fear is standing over them and threatening them with punishment, they obey; but when his back is turned, the work remains undone. The motive determining them must appeal not to their interests but to their instincts; immediate hope or immediate terror.”

Now it need scarcely be said that this is a picture of negro slavery, and that, too, in its very worst form, that of the recently imported African savage working on a plantation. Here again it is obvious that

Mr. Mill has been misled by the undue predominance of abstract ideas over concrete experience. His "slave" is, in reality, an abstraction covering the immense gulph which separates a Plato, who was once sold as a slave by the order of the elder Dionysius of Syracuse, from a Congo negro. Assuredly, with all his subservience to ideas and his indifference to facts, Mr. Mill must know that the Greek or Circassian slave of a Turkish emir is a very different being from the woolly haired and thick-lipped Ethiopian, who occupies a yet lower servile position in the same household. Though equally slaves, as being bought with a price, they are yet inherently and essentially wide as the poles asunder, as their rude and ignorant but nevertheless practical master clearly perceives. History informs us that the Mamelukes of Egypt were all purchased slaves from the Caucasus. Does Mr. Mill think their ranks could have been as well recruited from the countries south of the Sahara? But there is no need of multiplying instances. The man who does not know that the social condition of the slave, both during his serfdom and after his manumission, is largely influenced by his racial relationship to, or difference from, his master, has yet, not only his anthropology but his history to acquire.

Closely connected with his deficiencies and misconceptions on the subject of slavery, and originating doubtless in the same fundamental error, is the omission by Mr. Mill of any allusion to hybridism, as an obstruction to the formation and maintenance of a stable government. It is, of course, quite legitimate in *logic*, for the man who does not believe in race, to deny or ignore the existence of half-castes. But, unfortunately, nature will not so ignore them, as Mexico and the South American republics have found to their cost. Where the parental elements are very diverse, the hybrid is himself a fermenting monstrosity. He is ever a more or less chaotic compound. He is in conflict with himself, and but too often exhibits the vices of both parents without the virtues of either. He is a blot on creation, the product of a sin against nature, whom she hastens with all possible expedition to reduce to annihilation. He is not in healthful equilibrium, either mental or physical, and consequently cannot conduce to the stability of anything else. He is ever oscillating between his paternal and maternal proclivities. His very instincts are perverted. He unites the baseness of the negro with the aspirations of the European; and while the creature of ungovernable appetite, longs for that liberty which is only compatible with self-command. Such are the many-coloured many-featured "curs" that abound in most of the colonial populations of modern times, produced, as we have said, by our having overstepped the boundaries of nature in the mixture of races.

Now in any work on Liberty and Representative Government, it

surely behoved the writer to take such an element as this into account. And the fact that he has not done so, renders these otherwise admirable productions of Mr. Mill of very inferior value, even in reference to the very subject which they profess to elucidate. Judging by the time-honoured examples of Egypt and India, the only safe procedure with such a population of hybrids, is the institution and rigid maintenance of caste, to which, under such circumstances, things naturally tend, as we see among our transatlantic brethren at the present day. It was, perhaps in part, for the want of this regulation in adequate force, that Carthage ultimately succumbed to Rome; for while his splendid Numidian cavalry undoubtedly helped Hannibal to some of his earlier victories, the mingled mobs at home contributed yet more effectually to his final defeat.

And thus we are brought to the great question of political and individual liberty contemplated from the ethnic stand-point. Now it need scarcely be said even to the tyro in anthropology that this is pre-eminently a question of race as well as culture, while Mr. John Stuart Mill treats of it throughout as simply a matter of collective educational preparation. Liberty and slavery are with him equally the possibility of all peoples. That the higher races are inherently more qualified for both political and individual liberty than the lower, he ignores in one place and denies by implication in another. In this he is quite consistent. It is an unavoidable corollary from the premiss of equality, but then, as already remarked, this premiss is itself an assumption of which those most familiar with anthropological science have the most doubt.

Were it not that we are steeled by habit to such proceedings, it might, perhaps, prove matter for grave reflection, that in the midst of our inductive era a school of thinkers can still be found, who independently of all detailed examination of the fact, dare to make the great affirmation of racial equality. That the religious world should do this does not surprise us. It is an accordance with the mediæval proclivities of theological thought. But it is otherwise with Mr. Mill and his followers, of whom, but for their uninquiring subservience to preconceived ideas, we might expect better things. Only think what this affirmation implies. Nothing less than a detailed knowledge of the passional impulses, the moral principles, and the intellectual faculties of all the various divisions of mankind. Why, the collective information of all the Anthropological Societies in existence, lands us only at the very threshold of such knowledge. And that collective information, be it remembered, as year by year it gradually increases, only brings us the more surely to a settled conviction of *existing* diversity, which is, moreover, so marked and found to consist in such very important anatomical

and physiological differences, that the growing conviction among most anthropological students is, that this so strongly marked diversity, is aboriginal, and consequently ineradicable. But whatever may be the value of these convictions, those who hold them have at least been guided in their search after truth by the laws of induction. They have examined the facts, they have investigated the data, and have deduced their conclusions from the elements so obtained. While Mr. Mill, disdaining such laborious processes, leaps at once, according to the old high *à priori* method, to the magnificent assumption of racial equality, and then proceeds in undoubting confidence to all its far-stretching conclusions and momentous consequences.

But postponing for the present any further consideration of his processes, let us glance at Mr. Mill's assumption, that the capacity for liberty is simply a question of educational preparation, and with which, race has nothing whatever to do. What says history on the aptitude of the various divisions of mankind for political liberty. And here we must carefully distinguish between the wild license of the savage and the legalised liberty of the civilised citizen of a constitutional state. There is, no doubt, plenty of the former in the Indian wigwams of America, or the Hottentot kraals of South Africa, but such license is only a prelude to the direst despotism, at the first dawn of civilisation, as we see in the case of the Indian monarchies of Peru and Mexico. It is the same with the rude freedom of the Mongolic nomads, which at once degenerates into the paternal despotism of China, as soon as they have exchanged their migratory habits as shepherds, for the settled occupations which accompany agriculture and its necessary concomitants in the mechanical arts. Leaving savagism then behind, where, in truth, we do not so much see the presence of liberty as the absence of government, what Negroid or Mongolic peoples have ever developed constitutional freedom such as that once existing at Athens and Rome, and now enjoyed in Britain and the United States. Nay, what people far removed from the Ethnic area of Europe have ever accomplished this? For the Ionian Greeks, the Jews and the Phoenicians, together with the Carthaginian descendants of the latter, were at least Mediterranean races; and as we have already observed, with many European characteristics. And of the peoples of Europe, do all show an equal aptitude for liberty? Leaving out the classic type, as being in a sense historically past, do the existing Teutons, Celts and Slavons manifest the same capacity for achieving and retaining liberty? We would not however dwell too forcibly on the diversities in this respect, at present attaching to the various members of the great and nobly-endowed European family, as we are quite willing to admit, that many of these specialities are

largely, if not wholly due to educational accidents. And indeed we are prepared to acknowledge, that all Caucasian types on the European area, may, with due preparation, be found fit for working the complex machinery of a constitutional monarchy. History, however, informs us that the Classic and Teutonic divisions alone have yet shown any decided and inherent qualification for political liberty, and that where there is not at least a large admixture of one or both, liberty is either wholly absent or enjoyed by a very fitful and uncertain tenure.

But distinct from, if not above and beyond political liberty, is that which attaches to the individual. Men may be politically free, yet socially enslaved. They may not dare to say or do what the law allows, being overawed by the despotism of fashion or the prescription of precedent. This is the state of the great majority of respectable persons throughout Europe. But history narrates instances where this authority of custom has been fossilised into law. Egypt and India are notable examples. Here again Mr. Mill treats this subject in the abstract, quite independently of all considerations of race, and yet, as in the case of political liberty, it obviously has some connection with type. Some races submit far more slavishly to the tyranny of custom than others. In the lower types, indeed, individuality, in the nobler sense of that very expressive and much-embracing term, is, strictly speaking, unknown. This is a subject deserving of far more investigation than it has yet received. There is obviously more individuality in the Teutonic than the Celtic type. There was, perhaps, more of it in the Roman than the Greek, and there is decidedly more of it in the European than the Asiatic. Speaking nationally, there is more of it in England than in France, and more of it in lowland Scotland than in England.

In the treatment of this subject we must carefully distinguish between those moral monstrosities who are only marked by oddity, by crochets in thought, and eccentricities in action, from those truly individualised personalities, really characterised by originality and by its accompanying independence in thought and conduct. The latter are doubtless rare in all races, and when carefully studied are generally found to present *physical* as well as moral attributes indicative of peculiarly effective development, at least in certain directions. The head and face of Cæsar, were, no doubt, especially Roman. He did not depart from his racial type by anything at all abnormal. Yet he was a unique individuality. He was so because he was the most strongly pronounced, shall we say it, the most distinctly specialised, mentally and physically, of all his racially vigorous countrymen.

This matter goes down to great depths. We would not willingly fatigue even the general reader by a set treatise, aiming to be

exhaustive; but without a few more remarks and illustrations, it is impossible that our meaning should be fully understood. Specialisation is the test of development. From the zoophyte to man the march is steadily in this direction. In the vegetable kingdom it is the blossom and the fruit that constitute the individual—never fully born out of the maternal matrix, the plant proper, being strictly speaking, a congeries of imperfectly developed individualities, that never advance beyond the foetal stage. We have the analogues of this in the corals, the polypi, and the mollusca, and growing fainter, in the spawn of fish. This, however, is simply the stage of physical aggregation, above and beyond which is that of the moral sphere. The ant and the bee have no distinct individuality of will and character. They are the blind and unresisting instrumentalities of a common purpose. They are the integral parts of a larger whole—the hill or the hive. Now, among men, the community is the plant, the hive, the moral matrix, whereto all its human blossoms still inhere.

We begin now then to understand how it is that the higher races manifest more individuality than the lower; they are less foetal in their character, both morally and physically. It has been long observed that the Negroid and Mongolic races are far less distinctly marked physiognomically than the Caucasian. They keep much closer to the common type; we may add, in mind as well as body. And among Caucasian peoples, the same remark applies to the Sclavons, who are, it may be observed parenthetically, to Europe, what the Mongols proper are to Asia, the imperfectly-developed children of the North-eastern wilderness.

Again in this inquiry, as in that connected with the aptitude of various races for political liberty, we must carefully distinguish between the uncultured rudeness of the savage, and the true individuality of the vigorously constituted citizen of some free, yet civilised community. The first is only raw material waiting for the stamp of social despotism. It is simply wax, wanting nothing but the seal. Neither must we wholly ignore the influence of institutions, on the spirit of successive ages. Thus, for example, we quite agree with Mr. Mill that our more immediate present, is less favourable to individuality, at least in the outward life, than some ages which have preceded it. We are less under the tyranny of power, but we are more under the despotism of fashion, than the men of the eighteenth century. These oscillations are unavoidable, even in the highest races, whose strongly individualised members constituting but a small minority, are ever liable to suffer by "the pressure from without," on the part of the numerically preponderant mediocrity, by whom they

are surrounded. But this is something very distinct from the inherent tendency to fossilisation manifested by Asiatics, more especially those of the farther Orient. Yet, from his neglect of all racial considerations, Mr. Mill confounds these two things, and falls into precisely the same error as Dr. Draper, whose fallacies as to the cyclical repetition in Europe of the course of thought and action characteristic of China, were exposed in some remarks on race in history in our October Number (xi) for 1865. Towards the conclusion of the third chapter of his otherwise admirable work on liberty, where he is speaking of "individuality, as one of the elements of wellbeing," Mr. Mill warns us that "the modern *régime* of public opinion is, in an unorganised form, what the Chinese educational and political systems are in an organised ; and unless individuality shall be able successfully to assert itself against this yoke, Europe, notwithstanding its noble antecedents, and its professed Christianity, will tend to become another China." Here it is very obvious that the acute logician is in blissful ignorance of any ethnic distinctions as attaching to Mongolic China, or Caucasian Europe. In other words, he proceeds in his argument on the utterly fallacious assumption, that the racial element in the problem is identical in both instances, whereas, the merest tyro in Anthropology could inform him that the diversity is not only great, but greater than it is yet possible to define in all its elements of corporeal structure and mental constitution, and in the far-reaching consequences resulting from them.

But, lest we should labour under any misapprehension in this matter, Mr. Mill thus proceeds in his next paragraph. "What is it that has preserved Europe from this lot? What has made the European family of nations an improving, instead of a stationary portion of mankind? *Not any superior excellence in them*, which, when it exists, exists as the effect, and not as the cause ; *but their remarkable diversity of character and culture*. Individuals, classes, nations, have been extremely unlike one another : they have struck out a great variety of paths, each leading to something valuable." And farther on, "Europe is, in my judgment, wholly indebted to this plurality of paths, for its progressive and many-sided development." Oh, Anthropological reader, how shall we proceed to define such science and such *logic* as the foregoing? How speak with due severity, yet with proper respect, of such *self-contradictory* utterances, more especially from the mouth of the master? Shall we leave the matter, duly emphasised with italics, which, of course, are our own, to speak for itself, or shall we endeavour to make such palpable absurdities still more palpable. For the Anthropologist, most assuredly, nothing more is needed than the quotation, its own all-sufficient answer. Not,

however, to be too severe on Mr. Mill, we may observe that the direct contradiction involved in the italicised divisions of his sentence, arises from the fact, that in accordance with the principles of his school, he regards character as being *wholly* the product of circumstances, and not of circumstances acting on organisation. We must remember that he does not believe in ethnic areas, nor in zones of population. That the earth, in virtue of its telluric, climatic, and other influences, can and does produce different kinds of plants and animals, he would readily admit. But his political idols utterly forbid his applying the same principles to, or seeing correspondent facts in man. If a Chinaman differs from an Englishman, this, according to his philosophy, is altogether due to an accident of education, and not in any measure to inherent proclivities, dependant upon hereditarily transmitted specialities of structure and function, these very specialities being in large part due to racial type, itself the distinctive product of a given Ethnic area. In short, Mr. Mill does not believe in race; and hence the grave errors of his otherwise admirable works.

And yet there are sentiments, even in some of his earlier writings, which might well have guarded him from these mistakes of his later years. Here, for instance, is an extract from his article on Bentham, in the *London and Westminster Review* for August, 1838, and reprinted in his Dissertations. "For the philosophy of matter, the materials are the properties of matter; for moral and political philosophy, *the properties of man, and of man's position in the world.*" And farther on in the same paragraph, "If in his survey of human nature and life he has left any element out, then, wheresoever that element exerts any influence, his conclusions will fail, more or less, in their application." Precisely so. Mr. Mill in his otherwise masterly "surveys of human nature and life," has left out the very important element of race, and as a necessary result, "wheresoever that element exerts any influence, his conclusions fail in their application," that is, however, truthful to his own race, the Teutonised Celts of Britain; they are, more or less, inapplicable to all other races, more especially those separated from us by such broad lines of demarcation as the Negroid and Mongolic populations of Central Africa and Eastern Asia. Of course, Mr. Mill and his friends will reply, that in the passage in question, and in others of similar import, which might be readily found scattered through his writings, he was not speaking of man in his *physical* relationships at all. And we readily grant this. It is not a part of his philosophic vocation to contemplate man under a material, or, to speak somewhat more definitively, a corporeal aspect. It rather suits his purpose, or shall we say, it better comports with

his frame of mind to speak in "vague generalities" about "human nature" and other "abstractions," which "he has not translated into realities," or subjected to "an exhaustive method of classification," to use some of the pet phrases of the great master of codification, whose life and labours constitute the subject-matter of the article from which we have just been quoting.

Mr. Mill very justly accords great praise to Bentham for never "reasoning about abstractions till they have been translated into realities." Will he pardon us for hinting to him that the abstractions, "man," and "human nature," need such a translation. When we, as Anthropologists, hear of man, we want to know what kind of man. That he is of the GENUS *homo* is not enough for us, we want to know his *species*, and, if possible, the very variety to which he belongs. And any naturalist will inform Mr. Mill that he requires precisely the same kind of information about an animal, before he can pronounce in any detail upon its qualities and attributes, upon its structure and its habits. We can, however, quite understand, that all these things are infinitely beneath the notice of Mr. Mill and his school, who, from the lofty empyrean of their closet philosophy, can afford to look down with unutterable pity upon people who concern themselves about such trifles as the development of the Negro brain, and the possible correlation of mind to so insignificant an organ! What, forsooth, has the proportion of the viscera in different races, to do with "Political Economy," saving and except that some stomachs are more prone to a carnivorous diet than others, and so, perhaps, cost rather more for their sustenance to the body politic? And what have strong or weak impulses, dominant passions, or predominant principles to do with law making, more especially that which is done in the closet. Having your chart of "human nature," can't you codify at your ease, for all times and countries, all climes and races? What is to hinder you? Nothing, my esteemed friend and most profound philosopher, absolutely nothing, we reply, except that most inconvenient of all possible obstructions, FACT; the world-old and world-wide fact of racial diversity, which has hitherto bid defiance to prophets and priests, to princes and legislators, in their benevolent endeavours to convert all mankind to one religion, and subject them to the beneficent restraint of one form of law and government.

The perversity of Mr. Mill in rejecting anthropology as an instrument for investigating the diversities of national character is something marvellous, as an instance of what may almost be called judicial blindness of intellect. Listen to his oracular utterances in the same article from which we have just been quoting: "That which alone causes any material interests to exist, which alone enables any body of human

beings to exist as a society, is national character." And in the next page, "A philosophy of laws and institutions, not founded on a philosophy of national character, is an absurdity." Amen, and again amen, say we, from the anthropological standpoint. Why this is the very pith and marrow of the whole matter. It is what we have been preaching from the very first. It is the burthen of our discourse. It is the very truth which we wish to impress upon statesmen and legislators, and we may add upon political economists, if it be right to name them apart from the foregoing. Oh, Mr. Mill, how nearly transparent is the veil, which nevertheless hides us from each other! It is very obvious that the great logician sees everything, but the fact in nature of organic speciality. To that, from his bookish education, he is blind, perhaps hopelessly so now. Shall we then blame him? Certainly not, but with all his greatness, we must yet, from the very depths of our soul, pity him. To be so near the truth, and yet from a prejudgment to miss it! To be forced to accept a conclusion, and yet from inveterate prejudice, to ignore the very data on which it is based! What will a more enlightened posterity say to the melancholy humiliation of so sad a position!

But, to use the words of Mr. Mill when speaking of Bentham, "it is an ungracious task to call a great benefactor of mankind to account for not being a greater." Mr. Mill is so enlightened and so liberal, with such a breadth of culture and such a true catholicity of sentiment on almost every other subject, that we are almost ashamed to take him thus severely to account for his deficiencies and prejudices on the subject of race. But as anthropologists we cannot but regard it as very important, and indeed we may say without exaggeration, all important, in reference to the very topics treated of, in all other respects, so ably by the great master of logic and political economics, and while we have not the smallest hope of converting him from the error of his ways, we would fain preserve some of his pupils and followers from falling into similar mistakes. We are not lacking in respect for Mr. Mill, nor we trust, wanting in the power to appreciate his great and commanding abilities, and the truly noble purposes to which, with lifelong assiduity, he has applied them. But we cannot blind ourselves to his egregious fallacies, nor can we persuade ourselves that these fallacies, bearing as they do directly on practical questions, are wholly innocuous. They have led him, and they have led inferior men, to make demands for the ruder races, such as science, the science of man, cannot sanction,—demands founded on ignorance of the great facts of race, and in opposition to the laws of nature. Demands all the more dangerous, because coinciding with that pseudo-philanthropy of our age, which starting from groundless assumptions, enthroned as first

principles, proceeds to their stupendous conclusions, in defiance alike of the revelations of science and the teachings of experience. A philanthropy that aims at uniformity where there is diversity; and which, disregarding alike anthropology and history, endeavours to set up the creed and code of Caucasian Christendom as the sole standard to which humanity in all its varieties must hasten to conform. A philanthropy based on the absurdity of a dogma, and which, therefore, can only end in the mortification of defeat, while productive of incalculable mischief in the process of experimentally demonstrating the fallacy of its principles and the groundlessness of its expectations.

We have, in the earlier part of the present article, spoken rather severely of the school to which Mr. Mill belongs. Let it not, however, be for one moment supposed that we would apply these remarks, in all their severity, to him individually, even in his speciality as a writer on legislation and political economy. He has too much good sense, and we may add, too much good feeling, to allow the errors of his school to wholly dominate his better nature. He is in the noblest sense the master of this school, for he is conducting it *through* many of its old errors into higher truths. He sees as clearly as any anthropologist the utter absurdity of attempting to impose European institutions on Asiatic slaves or African savages—in their own country. But because he persistently regards their disqualification for the immediate possession of political liberty, with its equal rights and representative government, as simply a matter of defective education, he does not hesitate to claim the franchise for the recently liberated Negro of the Southern States of America. To him in this connection, the term Negro simply implies a person who has, till within the last few months, unfortunately held an inferior *social* position. But it does not imply, as it does to the anthropologist, a being of inferior *organic* constitution, in whom corporeal function and animal impulse too readily dominate moral sentiment and intellectual aptitude, a being who is not merely a barbarian in his *habits*, but a savage in his *hereditary* proclivities. To this phase of the question, Mr. Mill is both blind and deaf. He will not or he cannot *see* the facts of racial diversity for himself, and he refuses to listen to the statements and conclusions of those who have made this subject the study of a life. To their scientific investigations and the results so far obtained by most carefully conducted observation, results steadily cumulative, he responds, on the old *à priori* method, that is from the seemingly impregnable stronghold of a preconception, in the very foolish words which we have prefixed to this paper. Now these words may perhaps be quite worthy of the school which Mr. Mill so ably represents, and we can conceive of his followers and admirers applauding them to the echo, but they

are not worthy of him. The ablest logician of the nineteenth century should not be so childishly facile in the assumption of his premises. Reasoning, to be of any value, demands something more than unassailable *concatenation*. It must have a tenable *basis*. It must have unassailable data. Now the data in reference to race are the concrete *facts* of race, not *abstract* political principles; they are facts obtained by the process of induction, not first principles evolved by a process of thought. Mr. Mill, in short, has overstepped his province. He has intruded into the domain of science, and hence the unpleasant necessity laid upon us, of warning him off, we trust with respectful civility, but we also hope in words "of no uncertain sound".

We had intended to make some remarks on race in relation to the principles of codification, as laid down by Jeremy Bentham, but such a subject demands special treatment, and could not with advantage be brought in as subsidiary to anything else. It is, however, a matter so intimately connected with, and we may say so entirely dependant for its application on, the facts of race, that we should fail in our duty as anthropologists, were we not to recur to it. At a more convenient season, then, we propose to again direct the reader's attention to legislation and political economy, and the important bearing of anthropological science on these two great departments of thought and action.

ON THE ORIGIN OF LANGUAGE.*

SOME time since the Rev. Frederic W. Farrar published a work on the *Origin of Language*, in which he enforced, with much strength of argument, the onomatopoeitic theory. In 1861 Professor Max Müller delivered, at the Royal Institute, a series of lectures on "the Science of Language", wherein he endeavoured to trace its origin to the possession by man of general ideas represented in language by *roots*, as opposed to the theories of imitation and interjection. These lectures have called forth a reply from Mr. Farrar in another work, entitled, *Chapters on Language*; and we think his endeavours to meet the various objections to the onomatopoeitic theory have been attended with no small degree of success. Mr. Farrar, after endeavouring to show that

* *Chapters on Language*. By the Rev. Frederic W. Farrar, M.A. London: Longmans. 1865.

language is a human discovery, and after dwelling on the "Experiment of Psammetichus", which we think he is rather too sanguine in accepting as a fact, proceeds to show the necessity of onomatopœia in the naming of animals, which he considers was that in which man first exercised the faculty of speech. He then gives a sketch of the infancy of humanity, and traces the psychological development of thought, giving examples of the several modes of expressing it, and explaining the operation of sound as its vehicle. The natural sensuous life of man expresses itself in interjections, imitations, and *Lautgeberden*, or vocal gestures, the three kinds of natural language. Of interjections, which are defined as "the arbitrary expression of subjective impressions," our author asserts that they form the roots of many words and that they were probably the very first sounds "to acquire the dignity and significance of reasonable speech". He does not however dwell long on the interjectional theory of the origin of language, for he affirms that the interjectional and onomatopœiæ theories "are not in reality different, and that both of them might without impropriety be classed under the latter name; "for," he adds, "the impulsive instinct to reproduce a sound is precisely analogous to that which gives vent to a sensation by an interjection." We have already seen that, according to his view, speech had its first exercise in the imitation of the sounds uttered by animals. The same principle operates in the verbal representation of other natural objects which attract attention by sound. Not that there is an exact reproduction of the sound. The imitation is "purely subjective, and merely reproduces the *impression*" the sound causes. The diversity in the articulated attempts of nations to reproduce one and the same sound is explained by the different impression it makes on different minds. Our author illustrates this position by the various words used to denote thunder, which it can hardly be doubted, notwithstanding the meaning of the Sanscrit root from which the word *thunder* is said to be derived, have had an onomatopœiæ origin.* In developing his theory, Mr. Farrar asserts that there must have been an original connexion between language and sense, and

* The word "thunder" is neither from the Sanskrit *tan*, to stretch, nor from the Greek *tonos*. In the Gotho-Teutonic languages it is found under the several forms of *thunder*, *thunor*, *donner*, *donder*, *dunder*, *dundren*; in Latin, *tonitru*; and in Persic, *tundar* or *tundur*. The *d* is perhaps casual, and the whole word is without doubt onomatopœiæ. *Tonos* is not from *tan*, but like *sono*, is derived in the same way. In the following eleven dialects of the Missouri valley, the word for thunder is probably an onomatopœia. In the Blackfoot, *kris-le-kum'*; Shyenne, *mo-no'-ma*; Arápopo, *be-ha'-ni-tā-il* (to); Atsi'na, *pa'-a*; Pawnee, *tōh-i'-ri-ru*; Ari'kara, *wa-rāh-te*; Dakota, *wa-ki'-an-o-tōmp*; Assiniboin, *o-té*; Crow, *su'-a*; Minnitaree, *ta'-ho*; Omaha, *ing-re'-ho-ta*.

therefore "any sound which would at once express and convey even the simplest sensation, must necessarily be a spontaneous *natural* sound ; i.e., it must be either imitative or interjectional." The most natural way of naming an object is by copying its characteristic mark, not that, on the onomatopoeitic theory, language is due solely to the instinct of imitation, but chiefly to the activity of the intellect, which "reproduces the imitative at will as the sign of a fixed representative and so as a word," which word "no longer calls attention to the sound, but stands for the whole conception of the object."

After explaining the theory of onomatopœia, our author carefully states and meets the several objections raised by its opponents, and chiefly those of Professor Max Müller. The objection that "the onomatopœias in our language are few in number" is answered by proof to the contrary. Were it not so, however, it must be remembered that words once distinctly imitative, must, by constant wear and tear, have "often lost every possible external trace of sensuous origin." This is illustrated by the analogous case of the origin of the Hebrew letters of the alphabet, each of which, according to our author, "is the name of some object, and the form of the letter a rude representation of the form of the object," and by the possible loss of resemblance of the letters to the things represented. Another objection that has been made to the onomatopoeitic theory is that in the names of many animals we do not see any similarity to the most striking sound uttered by them. The answer to this objection is that not only the large majority of animal names,—especially in Sanskrit, Hebrew, Chinese, and the languages of savage tribes, are onomatopœias, but also that most, if not the whole, of the names cited by Professor Max Müller in opposition to the theory have had an onomatopoeitic origin. A third objection, and the one which to us appears the most difficult to answer, is that "onomatopœias are *sterile*, and are unfit to express anything beyond the one object which they imitate." In reply to this objection our author cites, among instances of onomatopœias which are not sterile, the early human sounds *ma*, *pa*, *ta*, *da*, *ba*, as being most marvellous in their fruitfulness. That *all* onomatopœias are sterile would hardly be affirmed by even Professor Max Müller himself. We doubt, however, whether the real objection, viz., the *comparative* sterility of onomatopoeitic roots, is met by Mr. Farrar, but we shall have to refer to this point hereafter, and, therefore, leave it for the present. The objection to the imitative theory, that "the most obvious onomatopœias are generally modern and often undignified, and that onomatopœia could never, therefore, have been a leading principle of language;" and *that* arising from "the difficulty and illusoriness of the search" for onomatopœias, we think Mr. Farrar has satisfactorily

answered ; so with the objection of fancifulness in finding imitation where there is none, as in the case of the word *sugar*, such apparent onomatopœias being merely accidental. This objection, in our author's opinion, only strengthens his argument, as it shows "that language reverts to its primary instincts. The earliest sounds were imitative, and after long deviations from their primitive sound, after being subjected to a thousand varying influences, they yet tend to become imitative again."

As a last objection, Professor Max Müller asks how, on the onomatopœiotic theory, "are all things which do not appeal to the sense of hearing—how are the ideas of going, moving, standing, sinking, tasting, thinking, to be expressed?" To prove how these ideas could have had their origin in onomatopœia our author shows that signs denoting kindred ideas have had an analogous origin in the Chinese language, in which "*extension, growth, increase*, were figured by clouds, the firmament, and vegetables ; *motion, agility, slowness, idleness*, and *diligence*, by various insects, birds, fish, and quadrupeds. In this manner passions and sentiments were traced by the pencil, and ideas not subject to any sense were exhibited to the sight." We think our author is right in denying that verbal roots, such as going, moving, tasting, etc., were the earliest. The formation of the noun must have preceded that of the verb. It would seem probable that "at first roots stood for any and every part of speech, just as the monosyllabic expressions do, and just as they do to this day in that language of arrested development, the Chinese." In accounting, therefore, for the origin of words expressing ideas of going, standing, etc., on the onomatopœiotic theory, its advocates have not to account for the *verbal* roots, but only for the roots which express the simple act. Those which our author has dealt with—the ideas of going, standing, tasting—we think he has satisfactorily explained the origin of, on the imitative theory. He shows also how potent an aid to onomatopœia, in the formation of words to represent natural objects not appealing to the eye, is found in the intimate connection between the different senses, which he asserts to be really but one sense, that of feeling. As our author puts it, two sensations, for example, a sound and a colour, "are but states produced in a thinking-subject, and, therefore, the brain, which is affected by the sound, can use sound as a means of expressing the effect of the colour also. Hence, we find throughout all language an interchange between the words which properly belong to different senses." Our author shows how wonderfully language is indebted to metaphor for its richness. Instead of invention being called into play, "the permutations and combinations of the few roots already supplied by onomatopœia and interjections were found

amply sufficient" to name "the abstract, the ideal, the spiritual, the mental, the imponderable, the unseen."

We see then how on the onomatopoeitic theory the most voluminous language may ultimately be derived from comparatively few imitative roots. There may be reason to doubt whether Mr. Farrar's conclusion expresses the exact truth, but his line of argument recommends itself so strongly to the reason, that we hesitate not to affirm that substantially it must be received as a satisfactory answer to those opponents of the onomatopoeitic theory with whom he deals. Language must have had its origin, either in imitation or in something near akin to it. When, however, we arrive at this point, a difficulty presents itself, which arises from Mr. Farrar's own reasoning. He affirms that no language can exactly imitate the sounds of nature, what we call word imitations representing rather "the impressions produced than the sounds which produced them," all such imitations being, in fact, coloured by the subjective faculty. He thus, as we have seen, accounts for the difference between the words used in different languages to represent the same idea. It is evident, then, that something more than simple imitation operates in the formation of language roots. The mind seizes on the most striking characteristic of an animal, which, in most cases, is the sound it utters, and instinctively seeks to reproduce it, or rather, the impression it makes. Have we not, however, here something very much resembling interjection? What are interjections, but the "instinctive expression of the subjective impressions of external nature." Imitation and interjection, taken as the origin of language, are, in fact, both instinctive. Our author himself asserts this fundamental analogy between them, in words we have before quoted. It is true he reduces interjection to imitation, but may not imitation itself be reduced to simple interjection? Ordinary interjection, as the outward expression of subjective feeling, takes its *peculiar* form, because it has nothing to imitate, whilst imitative interjection takes its *peculiar* form, because it has already something by which it can be moulded, in the sound it imitates. It must be so, unless we suppose that an operation of the reason precedes the act of imitation. It seems to us, that by reversing our author's notion of the relation between interjection and onomatopœia, and taking the interjectional view of the origin of language, we have a means by which the opposing theories of Mr. Farrar and Professor Max Müller may be reconciled, at the expense, however, of much which they may suppose to be essential to them. The latter affirms that "names, though signs of individual conceptions, are all, without exception, derived from general ideas," the general being the first thing really known, and

that every word "expresses a general idea peculiar to the individual to which the name belongs." If, by this, is meant that we actually have and recognise in our own minds general ideas, before we know particular objects, Professor Max Müller's position is quite untenable. If, however, it is merely intended that there are certain general notions in the mind, which instinctively shew themselves when particular objects are presented to it, we are taught a great truth. When objects are presented to the mind, it intuitively clothes them with the general notion already existing, and instinctively performs that act which "separates man from other animals, the *naming of a thing*, or the making a thing knowable." If, however, this naming instinctively follows the presentation of an object to the mind, or, in other words, the perception of one of its qualities which agrees with the general notions before in the mind, we have only to affirm that the perception of that quality is intuitive, and its representation in language instinctive, and Professor Max Müller's theory is reduced to one of interjection. For what is this *naming* but the instinctive expression of the sensation accompanying the perception of an external object—in other words, an act of interjection?

On the other hand, to enable the supporters of the imitative theory to meet successfully the objection that onomatopoeitic roots are sterile, or the more fundamental objection that the ideas which do not appeal to the sense of hearing cannot be expressed by onomatopoeia, we must reduce imitation itself to interjection. Metaphor doubtless is a powerful auxiliary when language has been once formed, but to assert, that, because the impressions received through the senses act upon a "sensorium commune," or, in other words, because both a sound and a colour "are but states produced in a thinking subject, the brain, which is affected by the sound, can use sound as a means of expressing the effect of the colour also," does not meet the fundamental objection to the onomatopoeitic theory. Such an explanation is simply that, as all sensations affect one brain, the impressions received through all the senses may, and in fact must, originally have been represented by the same language signs, which, as they must have an analogy to the sensation, must be imitations of natural sounds. But suppose that, although our several senses may ultimately be reduced to the simple one of feeling, the impressions received through them are different, as they must be to enable us to distinguish between them, where is the necessity for the representation of such varying impressions by the same sound? Rather, as the impressions are different, we should suppose the instinctive expression of them to take different language forms. There is no more reason why

the first men should not have intuitively reproduced the impressions made on their minds through the medium of the eye, than that they should have represented sensations received through the ear. If, however, they did so, it must have been by interjection, as there would be no sound to imitate, and the impression reproduced must have been that of some striking quality of the object presented through the sensation. It is only so far as language sounds thus represent the qualities of objects, that they can be said to be necessarily fruitful. That they must be fruitful is evident, from the fact that, as the same quality is possessed by innumerable objects, the word denoting that quality can be applied to each of those objects, it being, indeed, in its very nature the expression of a generalisation. Of purely onomatopoeitic roots this cannot be affirmed, and hence the charge of sterility made against them with, we think, much truth. Mr. Farrar has certainly made good his position that such roots are not *necessarily* sterile, but we think that he has not answered the real objection. In fact, we much doubt whether the examples which he chiefly relies on—the early infant language sounds—are onomatopoeitic at all. At their origin, *ma*, *pa*, *ta*, etc., are much more like interjectional sounds than imitative ones. They are the “instinctive expression of subjective impressions,” and we think, therefore, they must be classed with the interjections, amongst which must also be placed the original and true onomatopœias of primitive language, which have, on our author’s own showing, so near a relation to interjections, that he would leave the *latter* out of view, or rather merge them as a class in their more fortunate rivals.

The advocates of the onomatopoeitic theory can not be surprised at the charge of sterility when they assert that, “words can tell us nothing whatever about things,” nor even “about ourselves and the modifications of our consciousness.” No wonder—if all we can know of things without us, even their bare existence, is still within us, and is “only a thought, a something thought of by ourselves,” and if “the subject is and must ever remain for us as incognisable as the object!”

Space will not permit us to enter into the nature of the *ego* and the *non-ego*, further than to point out the fallacy that, as we can only know “the modifications, changes, accidents, sensations of the *ego*”, therefore, we cannot know the *ego* itself; and that, even if “qualities of objects” exist outside the thinking subject, as we can only know those qualities, we can know nothing of the object. If the qualities of the object and the activity of the subject are essentials of their existence, in like manner as the existence of each single faggot (to quote an analogy of our author’s) is essential to that of a bundle of

faggots, and if to remove every faggot is to remove that which they in combination form, is not the knowledge of those qualities or that activity, a knowledge of the object or the subject itself? So far, then, from words telling us nothing "about ourselves and the modifications of our consciousness," each onomatopœia, as our author asserts, represents the "impression produced" on the receptive mind, and what is that but a "modification of consciousness," or a "sensation of the ego"? And if words can tell us "nothing about things," they are, in the words of our author, "the starting point of our higher intelligence," without which, "no great intellectual achievement would have been possible,"—not, however, because words are onomatopœias, or, as our author calls them, rude signs to represent approximately what *we think* about the relations of things, but because each word is the embodiment of a general idea expressive of a quality which may be predicated of an infinitude of objects, and because language is therefore a fit instrument for the infinite development of thought.

Other instances than those mentioned by Mr. Farrar of the article becoming tacked on to the noun might, if necessary, be given: as *nag* from *an hack*, from *eq-uus*; and *leisure* from French *l'oisir*, from *otium*, whence *aïse*, *ease*. In the fifteenth century occur many curious examples of this kind.

Mr. Farrar might, had he thought it desirable, have given a far greater number of words from some roots: thus, from the simple sound *ma*, we have also *matter*, *material*, *Madeira*, *matricide*, *matriculate*, *metropolis*, *matrix*, *matrimony*, *matron*, *mother*; whilst from the root *pa*, we have also *patrician*, *patriarch*, *patron*, *patronise*, *patriot*, *patrimony*. We are sorry to find Mr. Farrar imbued with the Aryan heresy; the term Aryan having no more definite meaning than that of Caucasian, which it replaced. Aryan races, Aryan languages, Aryan metaphors. At no distant date, we may expect to hear of "Aryan dinners at the shortest notice."

As an etymologist, Mr. Farrar can be generally relied on; but we think we can point out a few errors. Speaking of the fertility of onomatopoeietic roots, he says: "In Greek, we have βαβαζω, βαμβαλιζω, I stammer; in Hebrew, *balal*, confundere, Babel, Babylon"; but Babel is with more reason derived from Persic *báb-bel*, the gate or court, i.e. the city of Bel or Belus. We are told that the root *wilwan*, "to plunder", furnishes both the Latin *vulpes*, and the German *wolf*; whereas *vulpes* is more probably from αλωπηξ, preceded by the Æolic digamma, and *wolf* from the Gothic *wulfs* (Scand. *ulf*); doubtless a metathesis of *lupus*. Comp. *forma* from μορφη; Gr. κληρος, Lat. *glarea*, from Heb. *gerel*; *lædo*, from δηλεω. Again, *barbarian* is derived from the Sanskrit *varvara*, a jabberer or confused

talker, and the word *wälsch* from the Sanskrit *ml̥ch*; but the former is rather from the word *berber*, and the latter from O. G. *walch*, peregrinus (A. S. *wealh*), from *wallen*, peregrinari, migrare, errare, vagari. We learn that 'soul', the German *seele*, is probably from the same root as the word *sea*, and the Greek *σειω* (to shake); whereas *seele* (Ice. *sal*, *sial*) is from the Gothic *saiwala*, which Junius renders "source of life;" and "sea" (Francic *se*, *seo*, *seuu*, Ice. *sæ*, *sior*) is more likely from the Tatar *sou*, water.

LIVINGSTONE AS AN ANTHROPOLOGIST.*

WE are not surprised to hear that the public has somewhat coldly received Dr. Livingstone's new work. The experiences of six years could not be expected to yield such variety of incident as the experiences of sixteen. Nor is the spectacle of a government official, with a well appointed retinue, ascending a large though unknown river in a steamer, so romantic as that of a poor ruined missionary toiling across a continent attended only by some faithful blacks. It is not the author's fault that his second work should be far inferior to his first; but, with the mass of his readers, this circumstance has provoked a feeling of disappointment, and in many cases of unreasonable discontent.

It must also be admitted that *The Zambesi and its Tributaries* is not, from the circulating library point of view, a very interesting book. The subscriber to Mudie learns with a vague awe that the expedition, of which Dr. Livingstone was the gallant chief, made some most important geographical discoveries, but to his ordinary mind the book presents a flat surface, no result stands out in relief; a lake has been discovered, it is true, but he no longer cares for lakes, unless, like Speke's and Baker's, they may be supposed to contain the sources of the Nile; he is informed that the Kew gardens have been considerably enriched by the plant-products of the expedition, but he wants to see something out of the way, like the stuffed gorillas in the *Field* window. The fact is that, since Dr. Livingstone's first work appeared, Central Africa has lost its virgin freshness: a large number of works

* *The Zambesi and its Tributaries*. Murray. 1855.

have been produced, and those who read many books on Africa, arrive at the same conclusion as those who have travelled through many different regions of that continent. A sad monotony prevails. One may pass from Angola to the Mozambique, perhaps even from Abyssinia to the coast of the Senegal, without encountering so vivid a contrast as is afforded to the Englishman who lands at Dieppe, or to the European who crosses over from Gibraltar to Tangiers. One may soon exhaust the varieties of African landscape; the muddy river with its mangrove swamp, and the virgin forest all around; the desert with its sea of sand and its oases of waving palms; the undulating southern plain with its thorn jungles, its masses of grey rock, and antelopes moving in the distance. One may still sooner exhaust the varieties of African men. All savages closely resemble one another; to the uninitiated eye, it is always the same animal yet saddened face, the slim graceful form, the dark skin streaked with paint and covered with the coarse bijouterie of beads. The savage has no *character*; he possesses no more individuality than other creatures which live in herds: examine a thousand minds, and you will find always the same cunning, curiosity, sloth, and that good-natured dishonesty which prefers pilfering to theft with violence, and the telling of agreeable falsehoods to unpalatable truths. The first sight of tropical scenery, or of naked natives in a canoe, and the first perusal of a work on African travel, are decidedly epochs in one's life. But when once the first feeling of novelty has passed, eye and mind seek for sensations in vain, and one is obliged to return to Europe to be amused. We have tasted the *ennui* of civilisation—for instance, the last fortnight of a London season—and the *ennui* of savage life. We must own that we prefer the former. In the same manner, we imagine that people not specially interested in Africa, will turn from Livingstone's *Zambesi* even to the second series of the *Gentle Life*, or to the new selection of Mr. Tupper's works, with feelings of positive relief.

The members of the Geographical Society have reason, on the whole, to be tolerably well satisfied with the results of the expedition, which in some measure they assisted to launch. It is clear that Dr. Livingstone's crotchets on cotton and Christianity served to hinder exploration; and on one occasion he expressly states that he did not push on as he might have done, his object being less to explore than to gain the confidence of the natives, whom he was attempting to convert to his views on agriculture and theology. Still, geographical science has been enriched by the efforts of the expedition; and Dr. Kirk has displayed an industry in collecting plants, which cannot be too highly praised.

Anthropologists find little in this work to notice except some serious

blunders, which we shall presently expose. On the other hand, we can cordially recommend it to all nigger worshippers, missionary exporters, and other Exeter Hallitarians. In Dr. Livingstone's first work, he showed both sides of the missionary question; and when he spoke of the slave-trade or other African abominations, it was merely to offer practical hints for their suppression, without indulging in rancorous remarks against those who hold different opinions on the subject from himself. But now he taunts the Oxford and Cambridge Missionary Society with having abandoned their hopeless mission, after the sacrifice of several noble lives; he accuses Capt. Burton of saying things which he does not mean; and makes other vulgar and petulant remarks, for which he has made himself responsible, but which we hope, for Dr. Livingstone's sake, have emanated from his pious brother, of whom we trust that we are not likely to hear again. We hope, also, and we sincerely believe, that a veteran African traveller acted under the pressure of evil advice, when he attacked and robbed a party of natives of the only property which they possessed. It is true that these natives were slave-dealers, and their property slaves; and that Dr. Livingstone received no lucrative benefit from the outrage which he committed. But, in so doing, he violated the law of nations, which sanctions the capture of slaves upon the high seas, not upon land; and we think he violated a higher law as well. We do not sympathise with the slave-trade, but we are unable to condemn the poor ignorant natives who engage in it, and who cannot be made to understand that it is wrong. To them Dr. Livingstone's proceeding must have appeared an act of violent rapine; and the expedition was afterwards in its turn attacked by the natives, who evidently regarded Dr. Livingstone as a wandering bandit, and Bishop Mackenzie as a white fetish man, who desired to seize a portion of the soil, and people it with captives taken in war. It was this one act of violence which was followed by such disastrous consequences to the mission, and for which Dr. Livingstone was by other missionaries, not altogether unjustly, blamed.

We have nothing more to say against the explorer, but with the author we have some serious faults to find. In his first book, Dr. Livingstone was content to describe what he had done, what he had seen, and what he had heard: he has now thought fit to tell us what he thinks, which has considerably lessened the value of his work. We accept Dr. Livingstone's facts with pleasure, but we would prefer to have them unadulterated with his ideas. We admit at once his qualifications for the life of a pioneer in difficult and savage lands; his laborious boyhood as an artisan; his constitution hardened in Africa from a very early age; his indomitable energy; and his courage,

which we believe to be unrivalled. But, although he enjoyed a medical education, the best basis of a scientific training, he left England before he had had time to build anything upon this excellent foundation-stone. He went out to Africa as a raw student, his memory doubtless stored with "insertions" of muscles, and minute branchings of nerves, catalogued with "cases", and well acquainted with the composition of drugs. But soon he was forced to bury himself among an inferior race, learning their language till he had almost forgotten his own, and dividing his life between the duties of a herdsman and a village schoolmaster. Deprived of all literature but the Holy Scriptures, and of all European society save an English "squatter" or occasional Dutch Boer, it is scarcely to be expected that he would become a man of very enlarged views.

Such an existence would of necessity leave the muscles of the mind untrained, and the brain empty, or filled only with religious cobwebs. Dr. Livingstone appears to suppose that the gift of reasoning can be acquired late in life; that, because he has collected a multitude of facts, it is also in his power to deduce conclusions from them; that, because he has picked cotton in Africa, at the peril of his life, he is able to sit down to the brain loom, and weave his raw material into elegant fabrics for the requirements of European thought. He appears to suppose that he, with his poor naked mind bedaubed with the chalk and red ochre of Scotch theology, and with a threadbare, tattered waistcloth of education hanging around him, can compete with the gigantic intellect of Burton, who has not only made splendid explorations, but who is one of our greatest linguists, and who is armed from head to foot with almost all the gear of human knowledge. A Burton may be allowed to reason (though, like all men, he may sometimes reason wrong); but a Livingstone must only describe, and even then his mind will sometimes blind his eyes. We must warn our readers that his remarks upon the west coast of Africa, with all that he says about Christian missions in those regions, are absolutely worthless: he is not one of those men who can grasp a subject at a glance, and he only glanced at Sierra Leone. That he should have been deceived by the Christian converts of that charming colony, does not surprise us in the least. But when Dr. Livingstone, possibly stung by the praises which Capt. Burton has lavished upon the Mohammedans, declares them to be inferior to the Negroes, we must own that this is a triumph of faith over fact, which would have done Dr. Livingstone great credit in the middle ages.

Those who are acquainted with Africa, must be aware that his travels have been almost exclusively confined to that part over which Mohammedans have obtained no sway. He is, therefore, not com-

petent to judge of the Mohammedan religion at all, still less of its influence upon the heathen mind. Had he visited those vast regions through which Barth travelled; had he even, when he was on his flying visit to Sierra Leone, taken a short journey into the interior, he could scarcely, we imagine, have asserted that the ignoble fetish-worship of the Africans was superior to a religion which Locke termed a heresy, so closely does it resemble Christianity—a religion which has been as widely propagated among the nations of the East, as our own has been among the nations of the West; a religion which was believed in by the only civilised nations of the dark ages; a religion which has produced the Koran, with its attendant host of abstruse and eloquent works, its minute commentaries, and a controversial literature which rivals that of our own theology; a religion which is, in fact, compounded of Judaism and Christianity, and which has had not only its bandit conquerors with the fire and the sword, but its missionaries, who have journeyed among pagan lands with only the Koran in their hands, and its martyrs, whom gentle Christians have ere now banished, tortured, and burned alive at the stake.

“ But Dr. Livingstone prefers the superstitions of the Negro to a religion which, in the abstract, is second only to Christianity, and which is better suited to a savage people than our more elevated form of faith. For instance, he says, p. 522 :—

“ Though cheerless enough to a Christian, the African's religion is mild in its character. In one very remote and small corner of the country called Dahomey, it has degenerated into a bloody superstition. Human blood there takes the place of the propitiatory plants which are used over nine-tenths of the continent.”

Now, it so happens that the custom of human sacrifice is not peculiar to Dahomey, but prevails in Ashanti, and, we believe, more or less among all the tribes of Northern Guinea. Each king sacrifices a number of slaves, criminals, or captives taken in war, according to his means. Dahomey has monopolised the reputation for this kind of thing with the public at large, and with such African travellers as Dr. Livingstone, who furthermore tells us, that the cases of cruelty recorded in Speke's travels are also quite exceptional. As Dr. Livingstone has not yet visited the remote corner of the country through which Speke's explorations extended, we prefer to accept in the meanwhile the testimony of the latter traveller.

From the passage quoted above, the general reader would infer that the Africans, as a rule, never offered up anything more highly endowed with life than a flower or a shrub. Dr. Livingstone avoids mentioning the sorcery superstition, which, from our own experience, we can assert to be rife in Pagan Africa, from the Gambia to Angola,

and which, as we glean from other books, is to be met with among countries with which Dr. Livingstone is well acquainted. Briefly, it is this. Whenever a man of importance dies, the fetish-man is summoned, and is ordered by the relatives of the deceased to find out by whom his death had been caused. The fetish-man fixes upon some unfortunate person, who is subjected to an ordeal, which usually results in the murder of the accused. But upon this subject we might fill pages, accumulating facts upon facts. The character of the native African is mild, it is true; he is naturally averse to bloodshed; but, when he commits a cruelty, it is almost always in the name of that which Dr. Livingstone calls his religion. Again, he says:—

“They are not, like the Mohammedans, ostentatious in their prayers. The African retires from view somewhat like the Christian, who enters into his closet, and when he has shut the door, prays to his Father who sees in secret.”

Setting aside the fact that Christians are the only religious sect who put on their best clothes to pray in, we are perfectly willing to admit that the Africans are not ostentatious in their prayers. We have spent days and nights in their company in a canoe, without ever detecting them at their devotions; and a very indecent dance, for the purpose of exorcising an evil spirit from a young woman, was the only religious ceremony which we ever saw.

“From boyhood upwards,” continues our author (p. 513), “we have been accustomed from time to time to read in books of travels about the great advances annually made by Mohammedanism in Africa. The rate at which this religion spreads was said to be so rapid, that in after days, in our own pretty extensive travels, we have constantly been on the look out for the advancing wave from north to south, which it was prophesied would soon reduce the entire continent to the faith of the false prophet. The only foundation that we can discover for the assertions referred to, and for others of more recent date, is the fact that, in a remote corner of North-Western Africa, the Fulahs and Mandingoes, and some others in Northern Africa, as mentioned by Dr. Barth, have made conquests of territory; but even they care so little for the extension of their faith, that after conquest no pains whatever are taken to indoctrinate the adults of the tribe.”

We should be glad to know upon what authority Dr. Livingstone makes the last assertion. For our own part, we can only say this: We have been in the Fulah and Mandingo countries, which, not having been visited by Dr. Livingstone, we shall at once confess to be “a remote corner” of the continent. We have seen there the converted villages and the unconverted villages side by side. In the latter the buildings were dirty hovels; the lands were untilled; the women did just sufficient work to keep their husbands from starvation.

These gentlemen slept all the day, danced, sang, played musical instruments, and drank palm-wine all the night. Their chieftains, when enriched by trade, had sometimes as many as a hundred wives: not a man was honest, not a woman was virtuous among them. While, among the Mohammedans, the drinking of strong liquors, the marrying of more than four wives, theft, lying, harlotry, and all other vices, were sternly forbidden. In every village was a school, in which the children were instructed in the Koran, and in writing Arabic, and taught maxims of morality.

Thus it is not without surprise, and somewhat of contempt, that we read in this work (p. 515): "The moral tone of the followers of Mohammed is pitched at a lower key than that of the untutored African." And again: "The only religion that now makes proselytes is that of Jesus Christ."

FLOURENS ON THE SCIENCE OF MAN.*

So diversely, within the last few years, has it been thought necessary to treat of the science of man, that, though anthropologists are thoroughly alive to its real meaning, the general public still remains profoundly ignorant of its true scope and aim. While some view it from a purely materialistic standpoint, and limit its sphere to an examination of man's physical constitution, eliding, or but superficially contemplating his mental attributes and nature; others regard it in the light of philosophic generalisation, and interpret it to signify the study of the laws of historical progress and civilisation. The science of man is not uncommonly confused, also, with a general anecdotal description of his habits portrayed by a fanciful pen from old books of travels, and other equally trustworthy sources. That the proper study of the science of man involves the most minute examination and careful comparison of a series of facts in which day by day some trifling change may affect the whole science, seems to be an idea quite foreign to the average inquirer. The problems of man's origin—his capacities for progress and happiness, his antiquity and his future, rise like dreadful phantoms, and men of science turn and flee before them in dismay. But the study of anthropology or the science of man would be unnecessary, did its followers confine themselves to

* *Science de l'Homme*. Par Gustave Flourens. Première partie, tome premier. Bruxelles. 1865.

the limits of ethnography, or shackle themselves by traditional legends testifying to their own truth upon their internal evidence only, and hence the necessity for a more philosophical appreciation of historical anthropology.

The broad field of anthropology comprises many harvesters, and among these the philosophers who seek to unravel the laws of man's being by a close examination of his history and so inferentially to arrive at an approximation to man's *origines*, form no inconsiderable section. While Germany has produced her Lessing, Goethe, Herder, and Schlegel, and while Sismondi and Roscoe in their several departments have illustrated special portions of the philosophy of history,—France has not remained behind. To the names of authors upon this branch of anthropology, we have now to add that of M. Gustave Flourens, of whose work, so far as published, we shall now proceed to give an account.

We are met at the outset by one difficulty, which time alone can remedy. We have here but a fragment of the first section of M. Flourens' proposed work, and, in the present state of anthropology, the very portion on which it is desirable to exercise the greatest caution. The author describes the design of his work to be as follows:—

“The first part presents the action of humanity: first, the means of arriving at the true knowledge of human events, the production of these events, the influences by which they may be modified, the origin of nations, their comparative antiquity, the value of history; next, man's past subsistence on the earth, and that of each nation down to our epoch—the eras of humanity; and finally, man's future as founded upon the labours of the past and the aspirations of the present.

“The second part is devoted to the determination of the varieties of the human species, or races, and of their divisions, as afforded by the characteristics of the mind and body.

“The third portion comprehends material facts: the body of man and the other bodies constituting the universe, both organic or inorganic, studied from a human point of view. This point of view, alone true and worthy, should finally everywhere replace the theological point of view.”

Now, while coinciding in the last few words in which M. Flourens describes the scope of his work, we cannot but regret that the third and concluding part had not had the prior position assigned to it, and the more so, as on the very first page M. Flourens subscribes to the doctrine that the study of entire humanity is best initiated and most practically carried out by the contemplation of man as an individual, passing thence through family relations, to national life and race distinctions. To begin with broad generalisa-

tions was the fault of bygone students, and we confess it surprises us to find so accomplished a writer pursuing a method which, even in metaphysical Germany has been abandoned, of late years, for a greater degree of minuteness. A succession of monographs upon particular subjects cannot immediately lead to the clear establishment of a science on a broad basis; it would, in the present state of anthropology, be more prudent to avoid hasty conclusions drawn from the premises contained in a conspectus which must necessarily remain very incomplete for years to come. With this protest we may turn to the examination of the instalment before us.

No men know better how to put truisms in a brilliant way than Frenchmen. The reader is carried on with enthusiastic admiration at the clearness and cogency with which doctrines apparently new are laid down; and a kind of involuntary admiration causes this mirage of truisms to be accepted by him as novel reasonings. In this new world, which is the old—as Tennyson has it—the new form glitters and becomes the cynosure of every eye that it meets. But snatch away the veil and wash off the paint, and the old familiar verity of “nothing new under the sun” stands disclosed, raising in our minds such emotions as the special intellectual constitution of the individual looking on may call forth. Yet, the sophistical art has its uses too—in its beneficial office of varying the expression of dog-eared facts by wit, and sometimes turning up a diamond from the dung-hill. Eastern poetry derives its charms in the minds of those who read it, not from the multitude of ideas it presents so much as from the vast numbers of ways in which the same figure may be offered to the mind by the employment of synonyms.

The anthropomorphous tendency displayed by some writers is worthy of much more careful study than it has yet received. In one shape or other the habit of looking at everything as related to man’s bodily form, is constantly evinced by writers of widely different views. The last century produced a man, whose scientific attainments have been unjustly obscured by a singular theology, subsisting in our days as a religious sect. In his youth regarded by many as a practical and profound anatomist, Swedenborg carried into his theological speculations the idea of a universal man in the form of which he averred the whole cosmical universe, interior and exterior, subsisted; and in the present day, carrying the substantially same idea into social life, we find some American writers, beginning their reconstruction of society by insisting on the sovereignty of the individual as the basis of a staple form of political association. In like manner the man of science, studying the problems of the past with a view to the necessities of the present and the possibilities of the future, commences

best with the investigation of man's intimate nature, physiologically and psychologically. But, we fear, that the opposite course of taking large groups of men in a corporate capacity, and reasoning from them to the individual, will only complicate and confuse the work to be accomplished. But a very few years ago facts, universally accepted at the present day, were not only unknown, but unsuspected; and we have every reason to assign a much greater antiquity to the dawn of civilisation in Europe than was possible before the discovery of the Swiss lake habitations. This led to further researches, and, but recently, somewhat complicated machinery of wood referable to prehistoric times, has been discovered in Upper Italy.* Again, we read of traces of prehistoric civilisation in Italy; at a depth of thirty feet foundation walls of human habitations and tools were discovered in Modena; below that, at a depth of seventy feet, other fragments of human habitations were found, and still lower, removed a hundred feet from the surface, there were traces of a still more remote culture.† And yet, in the face of these discoveries, the infinitely delicate problem of human *origines* is proposed to be solved by mere deductions from the history of the migrations and anthropological characteristics of known historic peoples; modern, indeed, when compared with the builders of the structures to which we have referred! It is too soon to come to definite conclusions.

"Nations perish," says M. Flourens; "but history perishes not. Amidst the ruins which encumber its path, it advances with a firm step. Perhaps it sheds a few tears upon the ashes of a great people; but it has faith in humanity, and shaking off this dust sometime instinct with life, it resumes its way."

It is not desirable to occupy the reader's time with such anthropology as this, nor need it to have been quoted, except for the curious subjective illustrations of anthropology, it, in some degree, affords. M. Flourens here is completely anthropomorphistic in his eloquence. To individualise history would seem rather the function of an artist than that of a man of science.

"History perishes not, though nations" (objective forms capable of sight and touch) "perish. History advances amidst" (subjective) "ruins with" (subjectively) "firm steps. History sheds tears!"

History has even a religious faith, and a will of its own! Really, in the face of such a passage as this, we are tempted to much risibility.

It may be true that the concrete action of humanity is subject to definite laws of which we, as individuals, have no consciousness; but

* Gastaldi, *Lake Habitations*, pp. 110-112.

† Vollgraff, *Ethnologie, Anthropologie, und Staats-Philosophie*. Erster Theil; Anthropognosie, p. 40. Marburg. 1851.

surely to set up vague forms of misty splendour should be left to some other hands than those of the student of the strict science of man. We should agree with the frank fearless words of Reich, so instinct with the spirit of impartiality, and the free acceptance of a materialistic destiny—should this exist—rather than bow down at the shrine of a vague generalisation.

"If we desire," observes Reich, "to investigate the causes of phenomena, we must take up a standpoint external to them; we must not permit ourselves to be drawn into the region of phenomena, and our verdict must not be the result of our own peculiarities. And for the very reason that it is so unusual to find investigators leaving their own personality out of the inquiry, it happens that the universe in its magnitude and entirety is always judged with reference to individual relations, and construed according to the greater or less area of the partial observer. All philosophical systems, hitherto built up outside of the path of exact natural investigation, all cosmogonies written without frank recognition and valuation of the facts conquered by the aid of sciences, show themselves to be the faithful mirror-picture of individual modes of private cogitation; and these, being devoid of a true basis, suffer *ab initio* from the evil of insolidity, as also from the weakness of inherent contradiction, because, instead of proceeding from the Great All, they have the individuality of their founder for their angle of incidence; for these reasons were they endowed with only an ephemeral existence, and the first breath of impartial inquiry was enough, not alone to shake them to the foundation, but to destroy them altogether.

"The man ignorant of nature, wrapped in his sublime fog, and over-estimating his species, regards himself as the centre of the world. The impartial philosopher knows of himself that he is scarcely of that significance in the universe which is possessed by a grain of sand in the ocean; and in the process of inquiry, he assumes his own value to equal zero. Hence it is not at all wonderful that the results obtained are diametrically opposed."*

Such a mode of investigation, we think, is likely to be much more fertile in results—though less flattering to man's vanity—than the *a priori* reasoning of an Oken, or the baseless speculations rising out of oral tradition or assumed revelation, befitting a period when the tendency of thought was of an entirely different nature.

M. Flourens, in the work before us, makes the remark that "the study of man is not a problem of geometry, or of mathematical reasoning, but of observation and experience."† Very true and very trite, but the whole question hinges upon the mode of observation. No two men exactly observe or record their experiences in the same way; there are few who are not biassed by early education, even if not by

* Reich, *Die Allgemeine Naturlehre des Menschen*, p. 1, sq.

† Flourens, p. 301.

personal interests. A devotion to an impartial science of man, to be sincere and fecund for future observers, involves—amidst the fleeting struggles of life—a daily and hourly social martyrdom. We appear, in one sense, to be ever at the threshold of our enterprise; to be proclaiming for ever the necessity of impartial observation founded upon induction, without making a step in the right direction by fearlessly investigating the human organism *per se*, subject to no theories as to origin, pandering to no passing prejudice, pointing to no vague political paradise in the dim mists of the future.

It is useless to attempt to assign laws, when the guiding principle remains concealed from us. It is not impossible that observation may ultimately unriddle the riddle of the inherent antipathies and sympathies of human races (which exercise so powerful an influence, and, in fact, constitute the problem); but to endeavour the solution of the riddle of the sphinx, involves eventualities from which system-builders alone refuse to recoil, and which ultimately lead to destruction and confutation.

After a few preliminary considerations, pointing to the gradual peopling of the world from the Orient, and the subsequent population of America by Europe in its turn, M. Flourens defines the domain of history to consist in “the study of those great ideas which crush peoples under their pressure, and remodel them according to their pitiless decrees”, and in the consideration of “those instinctive movements of nations which change the face of the world.”

“History,” he continues, “cherishes centuries which know how to suffer, and battle to increase by a new moral conquest the patrimony of the human race. But vulgar conquerors, whose ambition is their sole motive, find a severe judge in her. She pardons no attempt upon the life of nations; she leaves to politics their legal rights; but, in the lowest tribe of savages, as in the most civilised of nations, the rights of man are respected by her.

“History has in her hands as a sacred deposit, not alone the facts of human existence, the past of nations, but also the reward of the labours of every man. The past belongs to history; the present is about to belong to her; she leaves to man nothing but the future.”

In the second chapter, M. Flourens defines the foundation of history to be the belief in the testimony of man transmitted by oral tradition or by written monuments: this belief is innate in man's nature, as shewn by the veracity of children before having any ideas of honour or virtue; while the instinct of credulity is necessary to the mind, for, deprived of it, it would refuse all instruction, and there would then be no longer any society nor human wisdom. But joined with the instinct of belief, reason should be exercised to distinguish between the true and the false engendered by the interests of men.

Here we would pause to remark, that sometimes in historical matters the very misrepresentations made by men in the course of events become history in themselves, and therefore truly part of it. Of this we would remind the reader, in order to prevent the unnecessary writing of history as it *ought to be*, not as it *is* or *was*. Though no one of unprejudiced mind would be disposed to admit the policy of doing evil that good may come of it, yet it is impossible to be blind to the fact that, in large sections of time, gross crimes and events of immediate evil have resulted in the evolution of ultimate good to humanity in the aggregate. But when M. Flourens writes that "reason should exercise an absolute empire over history", he is only expressing an axiom universally admitted, and, of late years, the rule in practice. "History," as he afterwards says, "is only concerned with facts." But, possessing these, it is not enough; these facts would remain incomplete if their origin be not discovered. This consists in the human will, which has the power of choosing between reason and passion—both equally tending to the good of man, but by different ways. M. Flourens draws attention to the constant confusion of various ideas under the name of causes. There can be but one cause—the will, but the generating facts are the motives. "Their power is real, but it should not be admitted without examination; the order of events is not any mark of their origin." Finally, in leaving this subject, he says: "Chance cannot be wholly banished from history; but it should occupy a very small place therein."

M. Flourens commences his third chapter by saying that "if man were a pure intelligence acting upon other intelligences, it would be sufficient to determine the principle of his activity to find in it the entire origin of human events. But man consists at once of intelligence and matter: matter, which is the sphere of his activity, necessarily exercises an influence upon his body, which transmits a portion of it to the mind itself. The mind has, therefore, to combat this influence and reconquer its liberty without cessation." Material agents intervene in the production of human events as influences, and occasionally become motives. Among these last, M. Flourens instances the Baltic catastrophe, which forced three hundred thousand Kymry down upon the Roman empire, and led to the campaigns under Marius; also the destruction, in more recent times, of the Danish colonies of Greenland by the lowering of the temperature; these events, and similar facts in universal history, however, he considers to belong rather to a wider range of history than that of humanity alone.

Geographical circumstances M. Flourens counts among the main causes of the prosperity of great cities; in this confusing the effect

with the cause, for, as man was free to fix upon his dwelling-place, it was only natural that he should select the most favourable locality, and that this should continue, unless disturbed by some convulsion of nature, to form an important centre for human intercommunication. Many years ago M. Kohl, the well known German traveller, pointed out the permanence of capital cities, rarely removed very far from their ancient sites, and then only in obedience to the changes in the course of rivers, or other natural events.

M. Flourens proceeds, in the fourth chapter, to show that this eternal flux and reflux of events form character; and thence he passes from individual to national life, and from biography proper to history. Mixed races, according to M. Flourens, possess but a precarious existence; they have no vital endurance, and gradually fall before pure races, who are more susceptible of civilisation. Here we cannot agree with M. Flourens. The facts are against it; it is the mixed races who play the most distinguished part in the history of civilisation. England and North America are more composite in their ethnic characteristics than any other civilising powers, and yet we see no falling off in the anthropological characteristics of the races of those political entities. The composite character of the British populations, has recently received ample demonstration at the hands of Mr. Macintosh, in the pages of this *Review*; and no doubt further researches would materially confirm his conclusions. The time may come when all the nations of Europe will receive similar searching scrutiny; and we are not disposed to think that M. Flourens will be found confirmed in his observations.

We do not propose here to enter upon the dangerous ground of monogeny and polygeny; but we transfer a few words from M. Flourens to this place, in order to show his bias on that question.

"The human species," says he, "is one: in appearing, the races have constituted the species. The races appeared at various periods simultaneously, and in several primitive distinct tribes, or original divisions. Species is not an abstraction of the mind; it is a reality proved by facts. The broad features of humanity are everywhere the same: no variation is apparent in man's nature (*aucune variation n'atteint l'homme profond*). There are not in humanity those essential differences which, in other beings, separate beings of the same genus. The soul still more distinctly reveals its unity; no matter the diversities of colour, of language, of civilisation, the ideas of the species always correspond to the human voice. The existence of nationalities (*peuplades*) formed by the product of mixed races, proves specific unity. These products are imperfect; but they have been able to subsist separated from their stocks, and to reproduce themselves throughout numerous generations, as long as no foreign influence had weighed upon them."

We must confess that the way in which M. Flourens inaugurates his quest into the science of man, as we have before said, does not impress us with any vast idea of his originality. We must, however, wait with patience for the portions of his book yet to follow. Fascinating as the philosophy of history necessarily is to the philanthropist, important as it is to the statesman, it is yet but in its infancy, the haze of metaphysics having so long obscured the plain practical facts of the science of mind from the eyes of the student.

We quite agree with M. Flourens in his recommendation of induction as the only guide to any true science of history; but, with so incomplete a knowledge of that mysterious past, which is the storehouse of human error and human weakness, as well as the repository of man's greatest triumphs and noblest efforts, how can we expect with any confidence to apply inductive processes to large periods of time, without a more distinct knowledge of man as a physical being, without the light of archaic anthropology, and the support of anatomical science as a basis?

Through the four hundred pages of this book, M. Flourens continues his purely historical discourse. We regret that our space does not enable us to present many brilliant and acute passages; but it would be premature, at the present stage of the work, to pass any final opinion upon its contents. We must reiterate our regret at the arrangement adopted by the author, though we shall await the development of his method of treatment with confidence, and suspend our judgment.

ON THE HISTORICAL ANTHROPOLOGY OF WESTERN EUROPE.*

ONE of the most interesting, as well as one of the most instructive departments of anthropological science, is that in which the relations of the various races and nations who inhabit the globe are investigated. The study of the existing races of man, and of the influences which each exercises on those immediately in contact with it, although a more certain science, is often less interesting than the examination of the remarkable facts which history affords to us. When the historical mode of investigation is applied to many of the races of mankind, little or no results await us. An Australian savage, or the inhabitant of Tierra del Fuego, possesses no traditionary evidence of his own, whereon an account of the past history of his nation can be based; and the period of time during which he has been in contact with Europeans is too short to enable us to determine with certainty any facts regarding the events which have produced the dispersion, migration, increase, or extinction of his race. Yet, doubtless, there are important facts which would be disclosed to us, if we could tell any reliable information respecting the time when the early inhabitants of our tropical forests first contended for existence with the animals around them; and the conditions under which human life survived, whilst in South America, species of animals then contemporary with man, and now extinct, passed away. The method of inquiry which permits us to investigate these questions, falls legitimately within the scope of anthropology. It may be, and often has been, perverted. To search for the evidences of the existence of the first man who absolutely existed in any special quarter of the globe, would be a hazardous task, and probably one which an illogical mind would conceive. For modern science is so strongly imbued with the idea of the invariable sequence of general events, in the same manner, and governed by the same laws as at present, that a search after the remains of the first man would be as absurd an endeavour, as would be the attempts of the geologist who searched the Azoic rocks for the proofs of the existence of the first form of animate life. Modern science discourages these attempts to pierce into the "dead beginnings of things." Although the popular mind would very much like to have precise in-

* Abstract of a paper read before the Hastings and St. Leonard's Philosophical Society, January 10, 1866, by C. Carter Blake, Esq., F.G.S., F.A.S.L., Foreign Associate Anthropol. Soc. Paris, Spain, and Moscow.

formation when the first man appeared in Western Europe, it is in the essential nature of scientific analysis to preclude the fulfilment of this childish longing. In the nursery puzzle which asks whether hens or eggs first came into existence lurks a profound moral, which I would fain commend to the attention of all those who seek to fix a precise limit in time to the origin or geographical distribution of the human race in any special locality.

But in Europe traditions of a different description are afforded to us. The Norman, the Dane, the Saxon, the Briton, are all races who possess a certain amount of individuality, and who have exercised an amount of influence on human history almost greater than that produced by any other group of mankind. The amount of education which every one amongst us owes to Hebrew, Greek, and Roman civilisation, is doubtless great; but the indelible race-characters which are impressed on the physical structure, as well as on the mental peculiarities of the Englishman or Irishman, rest on an amount of evidence which is deeply fixed in our popular mind. The race-antagonism which exists between the so-called Celt and the Saxon at the present day, is as high as at any time during the period of history. When an English anthropologist descants on the inaccuracy of the genealogies of the Irish kings, which Celtic historians assume to have existed throughout countless ages, the impulsive son of Erin replies, as Mr. John M'Elheran has done, that the Saxon is a "flaxen-haired, bullet-headed, stupid, sulky boor". To investigate the truth of this charge, it would be necessary to compare much moral and mental evidence, which would perhaps lead me rather into the sphere of comparative, than of historical anthropology; still the fact remains, that, even in the limited geographical space covered by the British Isles, races exist who hate each other "like brethren", and who, during the whole time that they have been in reciprocal contact, have kept as aloof from each other as political necessity would permit.

Again, we are met in polite conversation, in which a little diluted science is always more or less acceptable, with such expressions as "What a classically Norman countenance Reginald de Courcy has! How his black hair and eyes contrast with the flaxen locks of Roger Clutterbuck!" In this assumption there lurks a fallacy deeply impressed on much of our popular teaching. We are not entitled to affirm that the Normans were actually of darker complexion than the Saxons. The descendants of Norwegians, who for two hundred years had inhabited Neustria, can be expected to differ very little in physical character from the Norwegians left behind in Norway, whose descendants are flaxen-haired. The existing population of Normandy is composed of individuals of precisely the same complexion as those of

South-eastern Sussex. It is to the introduction possibly of a Southern French element with the Conqueror, that we can attribute the conventional ideas of the Norman type of countenance. We shall, in process of time, doubtless realise the fact that the change in the dominant population of the British Isles, which took place after the Norman conquest, was a change acting rather upon the laws, customs, and language, than on the people themselves. The imaginary individuals who are depicted as Cedric and Front de Bœuf, if placed side by side, and divested of the accessories of dress, would puzzle each of us to tell which was the Saxon and which the Norman.

Another popular expression is often used. A "Milesian" type is frequently spoken of, as applied to the natives of the Green Isle, and you are certain to know that the frequency of the use of this word varies in the ratio of the speaker's ignorance of its definition. For there is no precise meaning to be attached to the term Milesian. No Irishman is more related to the inhabitants of the isle Miletus than he is to the inhabitants of Yorkshire. We cannot find the relatives of the modern Hibernian in the Greek archipelago. There is no foundation for the tradition of a Milesian descent for the Irish. Still less do we comprehend the statement more clearly when it is hinted to us that Milesian in some way means "Spanish." There is no historical proof of migration from Spain into Ireland, other than the fact that we have in Munster men with dark crisp curly hair and dark eyes. The amount of evidence which would associate ancient Irish with ancient Spaniards, and give them the name of ancient Greeks, is very small.

One of the most interesting problems connected with the historical Anthropology of Western Europe is the prevalence of many outlying and scattered peoples, separated from each other by the neighbouring more powerful and more important nations. The most prominent amongst these is doubtless the Basques. This people has been alleged, upon a certain ground of probability, to have been of the same group as the great Iberian nation that prior to the Roman conquest covered nearly the whole of Spain. Now cabined, cribbed and confined at the foot of the Pyrenes in the extreme north of the Peninsula, they have long attracted the attention of anthropologists. Their singular language, composed like some of the languages of Lapland and Finland by the agglutination of separate words in one word or sentence, has led many to suppose that they represent the traces of a nation which inhabited Europe from the North-cape in Lapland to the straits of Gibraltar. We find traces of allied peoples, it is said, in the Rhaetian Alps of Switzerland. The theory which presupposed the existence of this primitive "allophylian" people has been carried

to a great extent in Germany where it was invented, in France where it has been discussed, and in England where it has scarcely yet been comprehended. But the test which a comparison of the cranial forms of various peoples affords to us, serves to show that this theory, even enjoying as it did the approval of the illustrious Retzius, has very little foundation in fact. I am not here about to institute a comparison between the skulls of the Basques and those of the Lapps, but merely to indicate as a broad result the conclusion which was arrived at by the illustrious M. Broca after a due and diligent comparison; that the presumed affinity existing between the existing Basques and the modern Lapps is very small. This is interesting, and the only reliable fact that historical anthropology affords to us is that we have widespread over the whole of Spain, traces of the diffusion of the Basque language. Mr. Blake proceeded briefly to notice the hypothesis which Professor Phillips had recently propounded, that the *Cynetæ* of Herodotus might have been, possibly one of these allophylian tribes. As we had little more absolute information respecting the *Cynetæ* than the mere fact that they were found with the *Celtæ*, he thought this theory extremely wild. He alluded to the testimony of Cæsar, who spoke as follows: "*Britannia pars interior, ab iis incolitur quos natos in insula ipsa memoria proditum dicunt.*" Tacitus, in his Life of Agricola, had spoken of the traditions which existed of Iberian immigration into South Wales, Gallic to our South East Coast, and German to the Grampian hills. No direct affinity could be inferred between the South Welsh and the Spaniards, and perhaps less between the inhabitants of the Grampians and that of every known part of Germany.

He next adverted to the Atlantic population, taking the extinct Guanches of the Isle of Teneriffe as an example. We have perhaps a right to infer that the mysterious Basque nations, instead of being the relatives of Northern populations, are actually the relatives of such tribes as the Guanches. Those theorists who had speculated on the existence of an Atlantis might, if this theory be correct, have some solid ground for their hypothesis.

In France are to be found many races of men who have attracted of late considerable attention, and who have been known under the collective title of cursed races (*racæ maudites*). The Alans, the Suevi, the Visigoths, the Huns, the Iberi, the Vandals, the Saxons, the Neustrians, even the Phœnicians, have left elements which Lagneau considers to be distinctly recognisable in the French population. The Saracen element in France during the years 806—975 left many descendants. It is said that some of the Saracen legions settled themselves near Macon, where under the names of Burhins

and Chizerots, they still inhabit some part of the district. The Burhins have a dark complexion and are of medium size, with small bright eyes, sharply cut features, bushy eyebrows, and thick hair: the Chizerots are coarser in their physiognomy. The most interesting of these tribes are undoubtedly the Cagots of the Pyrenees, so persecuted by the authorities in Béarn in 1596. These have often been confused with diseased idiotic subjects like the *crétins* of the Alps, from whom they differ in many respects. *E.g.* the *crétin* is usually afflicted by *goitre*, and possesses an extremely small semi-idiotic brain: but the Cagot is apparently a normal example, and the intelligence of many male, and beauty of many female Cagots, have become proverbial. They are specially characterised by a peculiarly formed ear, sessile with, yet brusquely exerted from the head, small bright blue eyes, very large skulls, often of considerable breadth, short necks and frequently bowlegs. Two sorts exist, one with white skin and flaxen hair, the second deeply bronzed, with crisp woolly hair, grey eyes, and high cheekbones. It has been thought that the Cagots (*caas goths*; gothic dogs, or gothic hunters) were the descendants of the Visigoths, who fled to the desert places after their defeat at Vouille, and the subsequent conquest of Spain by the Saracens, or perhaps after the disastrous war of Charlemagne to the South of the Pyrenees. But all those who are acquainted with the Mohammedan polity will admit that the Arab conquerors of Spain were not persecutors, as the Roman and Gothic laws were allowed frequently to be kept amongst them. The Cagots have also been alleged to be of Saracen origin. They were frequently termed *Christaas*, and have been thought to be the descendants of Christians of the primitive Church persecuted and driven into the hills. Finally they have been considered to have been the descendants of the Albigeois, or Albigenses, against which heretical sect the civil law was rightly put in force between 1208 and 1226. The Gavaches, who may be considered as identical with the Cagots, speak the *langue d'oil*, allied to the modern Northern French, in the midst of a *langue d'oc* country. It might have been imagined that in the little Republic of Andorra, concealed in the Pyrenees, some trace of Cagot manners would have been found; but the Andorrans merely speak a debased Catalan Spanish, and do not differ in any way from the adjacent population. Again, no affinity seems to exist between the Cagots and the Basques. Mr. Blake alluded to the isolated state of the Cagots, and the manner in which by a defiance of the municipal law of France, the neighbouring population precluded them from possessing land.

The Phœnician element might be expected to be considerable in N.W. Europe. The Phœnicians founded Marseilles and many Medi-

terranean ports. Much had been said in favour of the hypothesis of their trade with Cornwall. This was not so certain as was formerly thought, in spite of the erudite treatise which Sir Henry James had recently promulgated. That learned author had endeavoured to show that the island Ictis, to which Diodorus Siculus alludes, was the present St. Michael's Mount, and not, as had been frequently thought, Vectis, or the Isle of Wight. It might have been expected that if Phœnician or other Syrian influences had existed for many years in Britain, some Semitic taint would be observable in the language, yet none such exists. Lysons had recently attempted to prove the contrary; an author who rather preferred to believe that the name of the village of Ore was derived from the Syrian root of Aurora, than from the ironworks which once existed in S.E. Sussex.

Mr. Blake briefly alluded to the traces of early population in W. Europe. He criticised the opinion which Retzius has so widely circulated, that the early Celts were a long-headed (dolichocephalic) race, in opposition to the short-headed prehistoric population of "Turanian" affinity who inhabited western Europe, prior to the arrival of the Celts, and whose modified descendants were supposed to be identifiable with the Basques, Laplanders, Rætians, etc. This theory of course rests on its own basis. It has been recently so severely criticised and ably defended in Paris, that Mr. Blake called attention to the fact that a certain long-headed type of skull is conventionally associated in our minds with the idea of the "Celt." He was, of course, aware that many early Briton (undoubtedly ancient) remains (*e.g.* those described by Dr. B. Davis from "Celtic" burial places in Northumberland) exhibit a short-headed form of skull. He was far from denying that the true typical Celt—in England at least—may be brachycephalic; but the confusion which has arisen on this subject appears rather to rest upon the supposition that one uniform race of men overspread western Europe prior to the great Teutonic, Slavonic, and Roman migrations. So far as regards France, M. Paul Broca has overturned this theory. He has shown that widely distinct races of men inhabited France at the earliest period; the researches of Dr. Thurnam *On the Principal Forms of Gaulish and British Skulls*, appear to lead to a similar result. Under these circumstances, he was content to admit the fact that in Ireland we have an extremely ancient dolichocephalic form of skull; in England, an extremely ancient brachycephalic form; in both countries, other and discordant types are to be discovered in riverbeds of the highest antiquity; turning eastward, the most ancient caves of Belgium appear to afford us another and distinct long-headed type, as well as a co-existent brachycephalic one; whilst the Danish tumuli present to us a form which, although brachycephalic, differs

most entirely from the brachycephaly of such ancient English skulls as those from Gristhorpe or Codford. At Alnwick, in Northumberland, Mr. T. Tate, nephew of their learned President, had, however, recently found skulls whose characters close accord with those of the Danish tumuli. Any of the above types of skull may be considered by an observer as "Celtic;" and should this word hereafter be proved to have any meaning, which may be reasonably doubted, anyone will be at liberty to select that skull which he chooses to represent the typical Celt. He remarked on the extreme tendency which modern anthropology presented minutely to subdivide the races of men. M. Broca had applied this investigation to France, and had distinctly shown the difference between the Gauls, *e.g.*, and the Kymri.

Did the so-called "Celtic population" ever extend into Eastern Europe or Asia Minor? The usually cited examples were of course the Cimbri, and the Galatians. Now he (Mr. Blake) confessed that he did not know any good reason to infer that the Cimbri of Denmark had anything to do with the Kimmerioi of the Crimea; more than the mere semblance of name. The Galatæ were, however, to be treated on their own ground, and he confessed that he thought the broad generalisations which had been made in a recent commentary on S. Paul's Epistle very wild indeed. Even supposing that the apostle had been addressing the aboriginal population of Galatia, which he does not appear to have done, there was nothing which could lead one to infer that there were at any time Celts in that country. He thought that the word Celt had merely been applied to them by the Greeks, in the same sense that the Chinese include under the name of "Fanqui" (barbarians) many diverse races, without assigning any special classification to them.

Mr. Blake concluded by remarking: Some may ask, what are the conclusions which I draw from the few illustrations I have cited from the vast series of facts at our disposal. There is a custom which I regret to see is too prevalent, to depreciate the accumulation of mere facts unless their interpretation "leaves upon the mind any distinct law-principle or new theory." This is a very curious phenomenon, even in the present phase of science. It can only in my mind be interpreted by one of two suppositions. Either he who sneers at the recordal of facts is constituted an authoritative and infallible guide, and possesses within himself all knowledge past, present, and future, comprehensible and incomprehensible. Science, however, rarely meets with these gifted teachers; and where we are all students, each man labouring with an earnest desire to make known the little he can discover by the faculties entrusted to him, few would arrogate to themselves those attributes of omniscience.

But another solution is I think the true one. He who scoffs at the known fact and craves hungrily for the new theory or the brilliant generalisation is often amongst those to whom the recital of a fact is tedious and incomprehensible. Lord Stanley recently said, "There are a great many people who if you give them a new idea, receive it almost as if you had offered them personal violence. It puts them out. They don't understand it, they are not used to it." These words really reveal the cause for the yearning which many still have for some wonderful "royal road to learning" which will enable those who cannot with ease enlarge their minds so as to comprehend the facts before us, to acquire an amount of knowledge far transcending that which a mere worker like myself can ever hope to attain.

ON THE CAROLINE ISLANDERS.

WITH reference to the article which appeared in the January number of the *Anthropological Review*, on the "Skulls of the Caroline Islanders", I beg permission to offer a few remarks (the result of my personal observations in the Pacific), which may perhaps tend to support the views of the writer.

The allegation to which reference is made, that the hair of certain islanders in the Pacific, variously described as Oriental Negroes, Negrillos, Negritos, and Papuans, grows, not equally spread over the scalp, but in tufts with bare spots between, is one which I very much question. So far as I have been able to learn, the hair grows spread equally over the scalp; and I think it will be found that the "spiral tufts" are directly the result of an artificial process, as described by your writer at p. 59 of the *Review*. It has been explicitly stated to me by natives of the Loyalty and New Hebrides groups, that their hair grew equally all over the scalp, and that the tufts were the result of training, as I stated in the *Athenæum* of December 23, 1865. "A party of ten natives from various islands in the group just named, were left in Fiji by a sandalwood trader, and employed by Dr. Brower, the U.S. consul, on his sugar plantation at Wakaia. Every hour that these men were not at work, they spent in plaiting, twisting, and training their hair into 'separate spiral tufts'; and they stated that such was the custom of their country, and that their hair *did not grow* in 'separate spiral tufts'." Another party of thirteen natives from the same groups, also left in Fiji by a sandalwood trader, *did not* train

their hair with "separate spiral tufts", but "teazed out their crisp locks into an immense bush", after the mop fashion—the prevailing style of the Fijians. In this they did not imitate the Fijians, but followed what they alleged was also a custom of their own islands.

It thus appears that on the same islands both customs or fashions are simultaneously existent. In the words of your writer, the hair "is generally exceedingly fine and slender, and of that structure which Mr. P. A. Browne denominated *eccentrically elliptical*." The consequence of this form of its section is, that it naturally twists into corkscrew locks. These the natives avail themselves of, and produce the "separate spiral tufts", or the immense mop-headed bush, as their fancy or vanity may prompt. "Those having any kind of crisp or woolly hair, which grows sufficiently freely, might adopt either custom, irrespective of its springing in tufts" (p. 59). I have known Fijians, whose hair is "crisp or woolly", produce these "separate spiral tufts", after having grown tired of their own common mop-headed fashion, and then revert to the mop-headed style after having in turn become tired of the "tufts".

At p. 59, it is remarked, "no straight-haired people would follow either of these fashions." I have known pure Samoans and Tongans (fair-skinned Polynesians)—whose hair is not in the least "crisp or woolly", but, on the contrary, quite straight and smooth, or at most wavy—produce sometimes the separate spiral tufts, sometimes the mop-fashion. In all the instances which thus came under my personal notice, the spiral tufts, I must confess, presented the appearance of a natural growth, and there was also the appearance of the bare spots between the tufts. A young Samoan, who was several years in my service, has cultivated both styles in the course of three months, the common flowing style of the Samoans being adopted in the interval. His name at the period to which I refer was Tui. Lately he has become head of his family, and as such (tulafale) has assumed the official or hereditary family name—Tamaalii, and belongs to the town of Fasitootai, on the island of Upolu. Naturally, his hair is neither crisp nor woolly; it is not even wavy, as is that of many Samoans; it is perfectly straight, though not so coarse as that of the generality of his countrymen. To produce the spiral tufts, a few hairs were closely and carefully twisted round a piece of the fine rib of the cocoanut-leaf, and the end tied with a strip of soft native cloth (Brussonetia). When the whole head was done, it was left in this state some ten days, the peculiar construction of the native pillow not interfering with the arrangement of the locks at night. The cocoanut ribs being removed, the hair was bathed with a mixture of scented cocoanut oil and bread-fruit gum (in Samoan, *pulu*), and after a careful and tedious manipu-

lation and arrangement of each separate pendant, there were these wonderful "separate spiral tufts" and the intervening bare spots, as natural to all appearance as a production of nature herself. I have personally known other individual instances in Samoa, with precisely the same conditions as the foregoing. The mop-headed fashion of the Fijians is not unfrequently cultivated by the fashionable and fast young men of Tonga, as well as by young Samoans, and is greatly admired in both groups as *the Fijian mode*. Yet, cultivated as it is occasionally only by the *exquisites*, it cannot be said to be a prevailing custom thus to tease out the hair in Tonga and Samoa in the mop-headed style. Nor is the style or mode of the "separate spiral tufts" precisely the same in all the islands. At Tana, Niua, Futuna, and Aneiteum, the tufts terminate in curls or ringlets, which are absent in some other islands. Without the remotest possibility of question, the crisp frizzly hair of the dark-skinned Fijians *does not* grow in separate spiral tufts; and if, as alleged, they are Oriental Negroes or Papuans, the allegation that the hair of this race grows in tufts, does not hold good when tested by fact. Neither will Mr. Earl's remark, as quoted at p. 60, bear the test of fact; since not only Fijians who are the offspring of parents, one of whom is a dark-skinned Papuan or Oriental Negro, and the other a fair-skinned Polynesian, but also pure Tongan and Samoan Polynesians, produce the "separate spiral tufts" with the apparently bare spots between, when they choose to apply the artificial process. I have, however, observed that the more crisp and woolly, or rather frizzly, the hair, the longer it will remain in "separate spiral tufts" without the repetition of the process which produces them.

Admiral Erskine, at p. 339 of his *Journal*, says that at Uea (Loyalty group) he observed "about an equal number of crisp and flowing haired heads, and was told on inquiry that the latter could not be artificially frizzled." The author of this information is not given. Nevertheless, I have no hesitation in repeating that my personal observation tells me that the flowing hair of the Pacific islanders can be, and is, artificially frizzled, and also trained into "separate spiral tufts". I must add, however, that I do not at this moment remember having met with instances of this artificial process to the eastward of the Tongan and Samoan Polynesians.

With reference to the *colour* of the hair, I do not know how far scientific observations on specimens forwarded to Europe from the Pacific may be affected by the custom, more or less prevalent in all the islands, of *dyeing the hair*. On some islands various kinds of clay are used; on others, various juices extracted from the barks or roots of trees; and on others, again (more commonly among the fair-skinned than among the dark-skinned islanders), the colour of the hair is regu-

lated by the application of coral lime. A man to-day has what in common parlance is called *black* hair; to-morrow he is seen with his head plastered all over with lime—snow-white; and so for five or six days successively, fresh lime is applied every morning. At the end of a week, after a thorough washing in the sea or the river, and a copious libation of cocoanut oil, the black hair has become auburn. In fact the natives, speaking generally (though the fair Polynesians somewhat excel their darker neighbours of the west), can produce any shade of colour, from black to light brown or auburn, just as they please; and these shades remain as long as the dyed hair lasts. But the *new* hair, as it grows after the dyeing process has been discontinued, is dark; and hence a man may often be seen with six inches of brown hair and six inches of dark hair in the same length at the same time on his head. Does the influence of the lime penetrate the skin, and more or less affect the growth, texture, and colour of the subsequent hair?*

Your writer remarks, that the “hypsi-stenocephalic crania are sometimes seen in an extreme form in the skulls of the Loyalty islanders” (p. 55); and that “it must remain for future investigators to determine the degree to which this peculiar type prevails in these groups. As far as can at present be ascertained it is general, yet marked with different shades of intensity in different cases, etc. (p. 56). Throughout the Loyalty, New Hebrides, Salomon, and other groups and islands, there has been more or less fusion of the dark- and fair-skinned peoples, the Oriental Negroes or Papuans, and the Polynesians. This intermixture is authenticated by positive genealogical traces of ancestry to Tonga and Samoa, by the commixture of customs, by philological affinities even to the prevalence of identical words, by the variety of the shades of colour of the skin, by the degrees of crisp and flowing hair, and by tradition. Now, does this intermixture affect the development and prevalence of the peculiar

* It may not be uninteresting to mention that, on those islands where lime is most commonly used to dye the hair, there are more natives with defective eyes than on any others. And I may add, though it is somewhat irrelevant, that pulmonary affections are, in proportion to the population, more prevalent in the mountainous islands, where the land-breeze and the dew of the night sweep from the interior to the coasts, than on the lagoon or atoll islands, where there is no land-breeze nor dew, or but very little. The land-breeze and the dew have the same name, *sau*, *haa*, or *hupe*, in Polynesian dialects; *caucau* (*taauthau*) in Fijian. It is also remarkable, that those islands where vaccination had been introduced, were passed by small-pox, when it travelled from the Sandwich Islands and Tahiti to the westward; and that the attacks of severe influenza, which have occasionally passed through the Pacific, can be traced in successive stages from east to west.

type of crania your writer describes? and does it account for the "different shades of intensity in different cases"? And, if the type is not "universal" in these groups, is it limited to particular islands or tribes, where there has been no intermixture? It is remarkable that the skull which is said to present the most savage type, is that of a young man belonging to Vaté, or Sandwich Island, where there has been a large intermixture of the fair- and dark-skinned islanders.

On this question of crania, it would be well to bear in mind the practice, so prevalent throughout the Pacific, of squeezing the heads of infants into the locally admired shape, which shape varies more or less in every island, or, at any rate, varies in every group. Before a child is a month old, its head is made to assume a totally different shape from that which nature designed, whatever that might be. In some cases, the tender skull is squeezed on the sides, over the ears, to make the head elevated in the centre. In some islands, it is pressed on the top and on the forehead, to make the head project behind. In other islands, the forehead and the back of the head are pressed. I think it will be found that, among the fair-skinned islanders, the prevailing custom is to squeeze the top and the back of the head and the forehead, to make the head (as they allege) round and low; and that, among the dark-skinned islanders, the prevailing custom is to squeeze the sides over the ears, and the upper part of the forehead and the lower part of the back of the skull, to produce (as they allege) a long, high head, which they fancy best displays the artificial spiral tufts, and the immense mop-headed bushes of hair. Does this squeezing process affect the form of the brain as well as the form of the cranium? The Tongans, Samoans, Tahitians, and Sandwich Islanders, for the most part squeeze the heads of infants in the former manner, while the Fijians adopt generally the latter. And yet the Fijians, said to be Oriental Negroes or Papuans, are not in mental or physical capacity inferior to their fairer-skinned neighbours, the Polynesians. When remonstrating with the mothers and grandmothers, whose duty it is duly to press the heads of the new-born babies into the admired shape, they have generally replied with indignation, "would you have the child grow up *ugly and foolish*?" It is certainly the general opinion of the islanders, that the particular way in which they each squeeze the heads of their infants, adds to the mental capacity, as well as improves the physical aspect. The pressure is performed by hand, every day, for three or four weeks—in fact, until the desired form is attained.

Throughout the Pacific, instances are occasionally found, where the hair has been "eradicated from the *labia*" by means of a small clam-shell, the same as used to eradicate the beard; and I have heard of

rare instances, where sometimes the *labia*, sometimes the parts immediately contiguous, were tattooed. This, I think, is more frequent among the fair-skinned islanders, though it is by no means a common practice in any of the groups of Eastern or Western Polynesia. And I could never discover any cause or motive for either practice, other than the mere fancy or vanity of the individual. It is, however, common to find women, especially ladies of rank, slightly tattooed high up on the inner parts of the *thighs*.

All the dark-skinned islanders bore their ears, and the lobes are as frequently inordinately stretched as left in the natural size. As we go eastward, the size of the hole and of the lobes becomes smaller, until the fair-skinned islanders simply make a hole large enough to carry a little flower or two, generally the sweet-scented *Gardenia*. In Fiji, Dr. Seemann and I found the chief Kuruduadua (Kurunduandua) of Navua, on the south coast of Viti Levu, with a huge cotton-reel, inlaid with white, blue, and red beads, hanging from his left ear, where it had been for many years, at once the pride of the chief, the admiration of his wives, and the wonder of his tribe.

From such information as I was able to collect (without myself visiting the precise locality), there seems no doubt, as your writer suggests, that the various grouplets classed under the general name of Caroline Islands, are peopled by dark- and fair-skinned, crisp- and flowing-haired natives—a fusion of the Oriental Negro or Papuan and the Polynesians. The latter, drifting in their frail canoes, amalgamated more or less with the former on the islands they reached, just as in the more southern groups of New Hebrides, Loyalty, Salomon, and other islands. The result is, the variety of hair, of shades of skin, and of language, now found to exist.

WILLIAM T. PRITCHARD.

ON THE LANGUAGE OF THE MAGYARS.*

THE language and literature of the Magyars have suffered greatly, partly from political causes, partly from the imposition of the Latin language. Upon the conversion of the Magyars to Christianity, the foreign clergy not only introduced the Latin into exclusive use in the public worship, but, through the power which they exercised, succeeded also in making it the language of the Court and of the government. We are led to believe indeed that for several centuries the native language was only in use among the lower classes, and that the Latin monopolised the field of literature till the close of the eighteenth century. But perhaps this is going too far, for we find a great many works in the Magyar language prior to the commencement of the present century. Not only is poetry well represented, but we notice also works on most of the arts and sciences, and many translations from French, English, Latin, Greek, Turkish and Arabic.† Joseph II endeavoured to supplant the Magyar language by decreeing the use of German in the schools, courts of justice, and administration, an attempt which seems to have produced effects the reverse of those anticipated; and it is from this period that the cultivation of the Hungarian language is said to have commenced.‡ In 1806 the Magyar was substituted for the Latin as the language of the courts and of public documents; and later, in 1831, the native language received a still further impetus through the laudable efforts of the Hungarian Academy.

There are many theories as to the origin of the Hungarians and their language, one writer tracing them to the Caucasus, another to Parthia, and a third to Palestine. Again, some have endeavoured to establish a connection between the Magyar and the Scandinavian languages, and even with the Arabic, Hindústání, Sanscrit,§ and

* At our request, Dr. Charnock has kindly favoured us with the following remarks on this interesting subject.

† Fejer wrote a work called *Anthropology and Logic*, but I do not know the date of publication.

‡ A late writer says: "The most decided and permanent excitement of the Magyar literature was received from these decrees of Joseph II, which were intended to overthrow it. The mandate 'Let the Magyar language perish', was construed by every patriot Hungarian into 'regenerate your mother-tongue', and it was regenerated."

§ There are Sanscrit roots in the Mongol, but it is doubtful whether any of them have found their way through the Kalmuck and the other Tatar dialects into the Magyar.

Chinese. A late writer says, "The Magyar language stands alone and remote from every other. We do not believe the story of Don Cossacks having lately wandered into Hungary, where they found, we are told, no difficulty in understanding and being understood by the Magyars. We have ourselves compared the Magyar with most of the dialects spoken in the south and east of Russia, and have ascertained that the resemblances are faint and few. In structure it bears a slight affinity to the Finnish, Laplandish, and Esthonian, and elaborate industry has discovered some words apparently of common origin. The same is the case with the Chudish, the Teutonic, and the Slavonian. But the distinguishing characters of the Magyar are solitary, and its roots cannot be traced to any hitherto discovered source. Much of the political history of the Magyars may be followed in the foreign words which are found in their language."* This writer might have been of a different opinion had he consulted the principal works on the Hungarian language which had seen the light at the time he wrote the above. Considered grammatically, the Hungarian has considerable affinity with the Lapponic and the Finnic proper, and to some extent with the Finnic and Finnic-Tatar dialects spoken by the Votyáks, the Cheremisses, and the Vogúls; also with the pure Tatar dialects and their offspring, the Turcic and Basque. The resemblances between the Magyar and the Turcic have been already pointed out by M. Vámbéry. Those between the Magyar and the pure Tatar dialects are but few on account of the paucity of the grammatical forms in the latter. In the Magyar there is only one conjugation for all regular verbs. In Mongol there is only one conjugation for both primitive and derivative verbs. The principal affinities between the Magyar and the Lapponic are in the termination of the nouns and the adjectives, in the absence of gender in the nouns, in the declension and conjugation, in the comparison of adjectives and adverbs, in the pronouns, the numerals, and the suffixes. The Hungarians, like the Lapps, are fond of reduplication.† [This is also the case in the Mandshu.] In declension and conjugation the Magyar agrees to some extent with the Esthnic. The Magyar forms some diminutives like the latter language, and agrees with it as it does with the Lapponic in the comparison of the adjectives. In the Magyar, the comparative degree is formed by adding *bb*, if the last letter of the positive ends in a vowel, and *abb* or *ebb*,

* See an article entitled "Language and Literature of the Magyars", *For. Quart. Rev.*, vol. iii, p. 28, 1829.

† Among other examples, Gyarmathi gives the following: *Lap. japest, japai. Mag. essendöröl, essendöre, de anno in annum; Lap. orron, orroje, Mag. örökkön, örökké, in æternum.*

if it ends in a consonant. In the Lapponic, if the last letter of the positive is *e* or *a*, it adds *b*; if in *es*, it adds *eb*; if in *as*, *atz*, or *os*, it adds *ab*. In the Dorpat dialect of the Esthnic the comparative is formed by the addition of *mb* to the positive. The Magyar agrees also with the Esthnic in its numerals and adverbs, and with the Basque, as with the Lapponic and Finnic, in the absence of gender in the nouns,* and also in the declension, in which it is liable to take, according to some, ten, according to others, thirteen cases.† The terminations of these cases have also certain resemblances, but somewhat more so in the Lapponic than in the Finnic. In conjugation it agrees considerably with the latter. The Hungarian and Lapponic express the idea "I have" as in Basque, Hebrew, and Arabic; thus, for "I have," they say "It is to me." In the first person of the present of the indicative, the Magyar agrees with the dialect of the Cheremisses, and in the formation of the infinitive, which always terminates in *ni*, with the dialects of the Votyáks, the Permians and the Syrjaens. There are also other resemblances in conjugation between the Basque, the Mordwinen, the Vogúl, and the Hungarian. Again, in the Magyar and Finnic (and especially in the former) takes place what has been termed the sympathy of vowels. In these two languages the vowels will only associate with the vowels of the same group, the soft with the soft, the hard with the hard; thus in Magyar the nouns *láb* (foot), *ember* (man), *bor* (wine), in the plural become *lábak*, *emberek*, *borok*.‡ In the Basque there is also a sympathy of the vowels, but it only takes place with those of a different group. Prince L. L. Bonaparte§ aptly illustrates this law: "Les dures avec les douces et les douces avec les dures, c'est là la règle du basque: l'ANTAGONISME. Les dures avec les dures et les douces avec les douces est celle des langues finnoises: le DUALISME." Again, in the Finnic, Lapponic, and Magyar, the terminations *ats*, *ke* are analogous to those in Basque, not only in position, but also in signification. There are also some affinities between the Magyar numerals and those of the Votyáks, the Permians, and Cheremisses, and with the latter in the suffixed possessive pronouns, and sometimes in the form of the pronoun itself. On account of the formation of the plural of their nouns in *k*, an affinity between the Lapponic of Finmark and the Basque has been suggested, but this may be merely accidental. It is said that anciently the Magyar

* No Finnic dialect distinguishes substantives by gender.

† The Mongol declension has ten cases.

‡ The plural termination in the Magyar is not employed when preceded by a noun of number.

§ *Langue Basque et Langues Finnoises*.. London: 1862.

had no plural, and when it was necessary to convey the idea of number the word *sok** (many) was attached, and that in time *sok* became abbreviated, and the last letter only was used to denote the plural form. If so, in order to establish any affinity in this respect, it must be shown that the Basque termination is also derived from *sok*, which cannot be done. One of the properties of the Magyar is in the extensive use of suffixes. Almost all the modifications of nouns, verbs, pronouns, and prepositions being produced by an addition to the termination without the use of auxiliaries: thus, a monosyllabic root often becomes lengthened to a word of eight or ten syllables, *e. g.* from *lat*, he sees, we in time get *láthatatlanágának*, to his unseeableness. The same takes place in the Basque, in the dialects of the Cheremisses and the Mordwines, and also in some of the American languages. In Basque the verb is capable of expressing the subject and the régime direct. The same can be done to a certain extent both in the Magyar, the Vogül, and the Mordwinen. In Magyar there is scarcely any law of syntax. In the arrangement of the words the Magyar admits of greater variation than any other European language. Wékey gives six, Márton sixteen, different variations in the collocation of *Az atyám eladta a házáat*, "my father has sold his house." The arrangement of the words, however, is generally governed by the emphasis required. In the names of persons, the baptismal always follows the ancestral name; thus, Kossuth Lajos (Louis Kossuth), Schvarcz Gyula (Julius Schvarcz). With the pronouns, when associated with nouns, verbs, or prepositions, a singular process frequently takes place. They are cut in two, and the word to which they are attached is placed between the halves; for example, *mienk* (our) *atyé* (father) becomes *miatyenk* (our father). In concluding this part of the subject, I will merely add that similarities of structure have also been remarked between the Magyar and the Armenian, and that there is a closer relationship between the former and the Slavic languages, as there is between those languages and the Finnic, than is generally supposed.

The Magyar vocabulary contains about 18,000 words. Of these, at least 500 may be traced direct to the Greek, Latin, German, French, Wallachian, and Italian; and about forty or fifty to the Turcic. A few words are also derived from the Persic, the Hebrew, and the Gipsy language, and a great many by means of onomatopœia. Taking the dictionary as it stands, I find 882 words in more or less affinity with the Lapponic, 219 with the Finnic, 477 with the Esthnic; and in these proportions in the dialects spoken by the following

* Probably the same as the Lapponic *kukke*, long.

peoples, viz., Vogúls 100 ; Cheremisses 124 ; Votyáks and Chuvashes 161 ; Syrjaens, Permians, and Mordwines 92 ; Ostyáks 39 ; Samoyedes* 69. The affinities of the Magyar with the Slavic languages are in about the following proportions : Russian† 923 ; Serbic 465 ; Bohemian 364 ; Polish 243. The affinities with the pure Tatar dialects do not amount to more than 240. Words pertaining to agricultural matters have been mostly borrowed from the Slavic dialects ; those relating to the arts of civilised life, from the German. In ecclesiastical matters many of the terms are of Latin origin, whilst, among other words borrowed from the Turcic, are some of the names for dress.

Rémusat classes the Tatar languages under four heads, viz., the Tibetan, the Mandshu, the Mongol, and the Ouighour (Uigur), which include some forty or fifty dialects. In 1730 Von Strahlenberg published his *Nord-und-Ostliche Theil von Europa und Asia*, containing a Polyglot table of 32 Tatar dialects, together with a Kalmuck vocabulary. In this table, however, two-thirds of the Finnic and Finnic-Tatar dialects before referred to are included. The Tatar dialects which I have principally consulted are those spoken by the Kalmucks, the Yakuts, the Nogai or Krim Tatara, and the Tunguses, of which there are several. The three first are included under the terms Mongolian and Uigur, the last under that of Mandshu. The follow-

* Many words are found in several of these dialects. Out of one hundred and ten words found in the dialects of the Ostyáks and Samoyedes, thirty-five are common to both.

† Many of the words in these four dialects are common to two or three of them, which would perhaps reduce the Slavic affinities to about 600 or 700 words. When I speak of affinity with so many Slavic words, I think it probable that the Magyar has actually borrowed most of them. At the end of his *Lexicon*, Dankovszky gives a summary showing primitive words in the Magyar amounting to 4,668 ; viz., 962 Magyar primitives, 3,706 foreign primitives, made up as follows :—

Slavic	1898
Greek	701 }
Greco-Slavic	188 }
Latin	334
German	288
Italian	268
French.....	25
Hebrew	4
	<hr/>
	3,706

But this can hardly be depended upon, the Lapponic, Finnic, and Finnic-Tatar words, being here ignored. For a list of the foreign words in Magyar, see *Über die Fremdwörter im Magyarischen*, von Johann Zahourek, Prag., 8vo. 1856.

ing is a specimen of words which may be traced to the German, Latin, or French :—

<i>Magyar.</i>	<i>German.</i>	<i>Latin.</i>	<i>French.</i>	<i>English.</i>
Angolna		anguilla		an eel
Benn	binnen			within
Bival		bubalus		buffalo
Bodnár	büttner			cooper
Bognár	wagner			wheelwright
Cséza			chaise	seat
Czeremónia		ceremonia		ceremony
Egzhás			église	church
Tábla			table	table

The following is a specimen of words found in affinity with the Lapponic, Finnic, or Esthonian :—

<i>Magyar.</i>	<i>Lapponic.</i>	<i>Finnic.</i>	<i>Esthnic.</i>	<i>English.</i>
Anyá	eana			mother
Atya	attje			father
Csont			kont	bone
Fa			pu	wood, tree
Farkas	varg, vargas			wolf
Hal		chala, kal	kalla	fish
Híd, híd			sild	bridge
Hold	hald, kold			moon
Hon			hone (habita- jää	country
Jég			kässi, kää	ice
Kéz	kez	kási, kesi		hand
Kő	kü, ku			stone
Méreg			murk	poison
Méz		mesi		honey
Szarv, szaru			sarw	horn

The following is a specimen of words in affinity with either the Tatar or Turcic :—

<i>Magyar.</i>	<i>Tatar.</i>	<i>Turcic.</i>	<i>English.</i>
Alázatos	alascha		humble
Anyá (formed anyám)	auna, aunám; ana (Uigur)	ana	mother
A' rpa	arpa (Uigur)	arpah	barley
Atya	ata (Uigur)	atá	father
Bátor	batir		bold
Cserfa (formerly tsere-fa)	tschara-fu		oak
Czifra		sifr	cipher
Ét	it; et (Uigur)	et	flesh
Falu	aul		village
Homok	kumák		sand
Jó		áyú	good
Kalap, kalpag	kalpag	kalpak	hat
Kapu	kapu, kapu	kapú	door
Szakáll	sagal, tzakal, zakal, sagkal	sakál	beard
Szalma	saman (Uigur)	saman	straw

The following is a specimen of words in affinity with the Slavic :—

<i>Magyar.</i>	<i>Russian.</i>	<i>Serbic.</i>	<i>Bohemian.</i>	<i>Polish.</i>	<i>English.</i>
Abrok			obrok		fodder, forage
Asztal	sztol			stol	table
Bán			pan		governor, ban

<i>Magyar.</i>	<i>Russian.</i>	<i>Serbio.</i>	<i>Bohemian.</i>	<i>Polish.</i>	<i>English.</i>
Bánya	banja				teeth
Bárany	baran				lamb
Bákka	buk			bukiew	beech
Cseléd			celed		servant
Grob			hrubi		coarse
Gyantár	jantar				amber
Járom	jarem, jarmo	jarem			yoke
Kard		grad	kord		sword
Kert					garden
Király		korol, kral			king
Méz	med				honey
Pára				para	vapour
Sin, sing	arsin				a Russian maas
Szalma				alama	straw
Torony	tjurma	toron			tower
Vagda	vojewode				voivode

It may be as well here to give the habitat, and to make a few remarks upon the dialects of the nations or tribes which have more or less affinity with the Magyar. The Tchuds or Finns inhabit separate portions of Russia. Most of them are settled on both sides of the Gulf of Finland, and both Finns and Laplanders occupy the country north of the Gulf. The Lapps have three dialects; the Norwegian or Fin-Lap; the Swedish or Lap Proper; and the Russo-Lap. The latter greatly resembles the Fin-Lap, which is spoken in Finmark, and is the most ancient and most pure; the second has undergone so great a change that in Russian Lapmark little is understood of the neighbouring dialects. Generally speaking, the language spoken by the Lapps differs from that of the Finns of Finland, not only in many words which are peculiar to it, but also by the sounds and the inflexions of the words. The whole grammatical structure is more ingenious in the Lapponic than in the Finnic branch. The Fin-Lap is richest in derivative words. The Esths inhabit Esthonia, one of the three Baltic provinces of Russia, having east the government of St. Petersburg, south Livonia and Lake Peipus, and north the Gulf of Finland. The Esthnic is a Finnic language, but has become more germanised than the Finnic. German being the idiom of the conquerors, is spoken by the nobles and the inhabitants of towns, etc. The native idiom is only spoken by the peasantry. The Esths having been long separated from the Finns, they understand each other no better than the Danes and Swedes, or the Germans and Dutch. The Chuvashes and Cheremisses dwell in the neighbourhood of Casan, on both sides of the Volga. The Chuvashes are chiefly settled on the western, the Cheremisses on the eastern side of the river. Single families are found as far south as Saratov. The dialect of the Chuvashes has a large number of roots common to the Finnic, but has also many of Tatar origin. The dialect of the Cheremisses has more Finnic roots than that of the Chuvashes, but there are also many from the Tatar. The Mordwi

or Mordwines dwell west of the Chuvashes, on both sides of the Sura, which falls into the Volga between Nishnei Novgorod and Casan. On the west they extend to the banks of the Oka. The Mordwines and the Cheremisses have been included in the Bulgaric branch of the Finnic stock. The Ostyáks (*i.e.* the people of the As or Ob) occupy both banks of the Ob (Obi), from Obdursk upwards to the confluence of that river with the Irtish; and even south of Obdursk are found some families. Their language has several dialects, which have more or less resemblance with those spoken by the Vogúls, and the Mordwines. The Vogúls or Vogúlich dwell west of the Ostyáks, occupying both declivities of the Ural chain, between 58° and 60° north latitude. They are said to be of Mogul origin. Their language may be called Finnic-Tatar, and has great affinity with that of the Magyars. The Vogúls, Magyars, and Ostyáks have been included under the Ugriic branch of the Finnic stock. The Permians inhabit the Russian government of Perm, which is partly in Europe, partly in Asia, but chiefly in the former, being separated by the Ural into two unequal portions, enclosed by the governments Vologda, Viatka, Orenburg, and Tobolsk. The Votyáks or Oudumurt, *i.e.* men, are settled west of the Permians, on both sides of the upper courses of the Viatka, and in the country about the source of the Kama. The dialects of the Votyáks, the Syrjaens, and the Permians have been included in the Permian branch of the Finnic stock. The Syrjaens inhabit the country between the upper course of the Kama and the Vychegda, an affluent of the Dwina, and particularly both banks of the Vychegda, as far west as the mouth of the Sinola. Although they have preserved their own dialect, they generally speak also the Russian language.

The Samoyedes are one of the most widely spread nomadic nations of northern Asia. Those of the north wander about the western coast of Siberia; those of the south inhabit that part of the Altai, which extends from the sources of the Tshulyshman, one of the principal branches of the Ob, to the south-western extremity of Lake Baikal. The Samoyedan tribes speak different dialects of the same language, which varies much from those of all the neighbouring nations, though it contains many roots which occur in the languages of central Asia. We now come to the tribes which may be considered as wholly of Tatar origin. With the exception of the Buriates, the Yakuts are the most populous of the nations of Eastern Siberia. They live in the country of the Tunguses. The language of the Yakuts has few words in common with the Mongol, and has been considered to have the same base as that of the Osmanli-Turks. According to Erman, out of 297 words of the Yakut language, only 114 do not occur in the dictionary of Turco-Tatar; and he thinks it can

hardly be doubted that a Yakut born on the Altai could make himself understood by an Osmanli of Constantinople. But this is going too far; two-thirds of the Turkish language being derived from the Arabic, Persian, and other languages. The appellation Kalmucks is given by the Russians to the principal branches of the division of the Mongols which bears the general name of Olöth or Oirat. Tribes of the Kalmucks occur over all the countries of Upper Asia, between 38° and 32° north latitude; and from the most northern bend of the Hoang-Ho to the banks of the Volga. Their language has considerable affinity with the Mongol. The Tunguses* are the most widely dispersed of the native tribes of Siberia. They occur even in Da-uria, particularly between the Onon and Argun, and the northern districts of Mandshuria are also peopled with them. Farther north they are in possession of the country that encloses Lake Baikal on the north; and hence they extend to the Polar Sea. Along the banks of the Yenesei they are found from some distance below Tunguska, and along the shores of the sea of Okhotsk from the boundary-line of the Chinese empire to the town of Okhotsk. Some parts of this extensive country are exclusively occupied by them; in other parts they are found by the side of the Yakuts. The dialects (of which there are eight) of all the tribes of the Tunguses differ little from each other, and may be classed under Mandshu. The Nogai or Krim Tartars inhabit the Crimea and the steppe which extends north of the Peninsula. They are also dispersed east of the sea of Azof, and along the northern base of the Caucasus. Grammars, vocabularies, etc., of the Finnic, Finnic-Tatar, and Tatar dialects, and treatises relating thereto have been published by Ahrens, Beregszasz, Boehtlingk, Bonaparte (Prince L. L.), Castrén, Euren, Faehlmann, Fiellström, Friis, Gabelentz, Ganander, Gyarmathi, Hunfalvy, Hupel, Ihre, Kalmár, Kellgren, Klaproth, Lönnrot, Márton, Medemann, Müller, Possart, Rask, Reguly, Renvall, Roehrig, Sajnovics, Schiefner, Schott, Sjögren, Stockfleth, Strahlenberg, Strahlmann, Tengström, Wékey, Wiedemann, Vhael and Zylander.

* They call themselves *Donki* (people), of which *Tungus* is a corruption; they are also called *Boys* (men).

ROMAN INTERCOURSE WITH IRELAND.

IN our last number there is a paper by Mr. Thomas Wright, the well-known antiquary, on the *True Assignment of Bronze Weapons*, which had been read before the British Association at Birmingham in 1865. The next article in the review is a notice of Professor Sven Nilsson's, the celebrated Swedish anthropologist, work on the *Primitive Inhabitants of Scandinavia*, in which the manufacture of bronze implements and weapons is directly applied to the Phœnicians, who, according to the professor, established factories, introduced Baal worship, built temples, and remained in Scandinavia till, by intermixture, they became totally absorbed in the mass of the native population.

There is, in all probability, no person in England holding a higher position, as regards some branches of archæology, than Mr. Wright; and most certainly there is no one from whom we would more deferentially presume to differ. Nevertheless, we feel compelled to contradict him most flatly and pointedly in one, and not the least important, of the sentences contained in his paper. Speaking of Ireland, he says, "Where, by the way, it has been somewhat too hastily asserted that the Roman arms never penetrated, seeing that we know little of the *history* of our islands under the Romans; that Juvenal, speaking as of a fact generally known, asserts—

‘Arma quidem ultra
Littora Juvernæ promovimus,’—

and that Roman antiquities are now found in Ireland."

To say that we know little of the history of our islands, under the Romans, is simply begging the question altogether. What we know is from the Roman historians alone; and we most decidedly deny that anything at all worthy of the name of a Roman antiquity has been discovered in Ireland. Of course, if the bronze, leaf-shaped swords be Roman antiquities, as Mr. Wright asserts, they are found more plentifully in Ireland than in any other part of the British islands; most of the leaf-shaped swords, now in the British Museum, were found in Ireland. But let us see what the historian says. Tacitus, the son-in-law and, we may say, panegyrist of Agricola, tells us that in the fifth summer's campaign (A.D. 82) Agricola made an expedition by sea.

"He embarked in the first Roman vessel that had ever crossed the estuary, and having penetrated into regions till then unknown, he defeated the inhabitants in several engagements, and lined the coast which lies opposite to Ireland with a body of troops; not so much

from an apprehension of danger as with a view to future objects. He saw that Ireland, lying between Britain and Spain, and at the same time convenient to the ports of Gaul, might prove a valuable acquisition, capable of giving an easy communication, and of course strength and union to provinces disjoined by nature."

The estuary that Agricola embarked upon and crossed was the estuary of the Clyde. A glance at a map is quite sufficient to acquaint us with what Tacitus meant by that part of Britain *quæ Hiberniam aspicit*. There cannot be a shadow of doubt that Agricola wintered his army in the peninsula formed by Lough Ryan and the Bay of Luce. Indeed, the remains of the earth works he threw up at the narrow isthmus between the above-mentioned bay and lough to prevent a surprise in force, according to the predatory tactics of his enemies, are still in existence. There Agricola passed the winter of 82-3 A.D., while the *Voluntii* of the Irish coast, in all probability, kept anxious watch and ward, gazing from hill and artificial mound to espy the first movements of the dreaded and world famous war.

Agricola experienced no difficulty in obtaining information respecting the country he intended to invade from merchants, who were well acquainted with its coasts and harbours. Like an old edition of an old story, a fugitive Irish prince was already in Agricola's camp, whom the clever and politic Roman, under a show of friendship, detained to be used as a fitting tool when occasion served.* Agricola was confident of success. Tacitus, who relates the story, says that he frequently heard him declare that a single legion, with a modicum of auxiliaries, would quite suffice for the conquest of Ireland. And such an occurrence, he continued, would greatly contribute to bridle the stubborn Britons, who then would see with dismay the Roman arms every where triumphant, and every spark of freedom extinguished round their coast.†

But it was not to be. Instead of invading Ireland in the spring of 83,‡ Agricola was compelled to lead his forces to the eastern shores of Scotland to repel the Northern Britons, who during the winter had penetrated the line of forts previously constructed by the Roman general, and made harassing inroads into the southern districts, then under Roman sway and protection. Perceiving, then, that Scotland must be completely conquered previous to his carrying on operations against

* *Agricola expulsum seditione domestica unum ex Regulis gentis exceperat ac specie amicitie in occasionem retinebat.*

† "*Idque etiam adversus Britanniam profuturam, si Romana ubique arma, et veluti e conspectu libertas tolleretur.*"

‡ There is a difference of one year in assigning the dates to the numerical order of Agricola's campaigns. The above is, however, the generally received date, and is sufficiently accurate for our purpose.

Ireland, Agricola occupied the summer of 83 A.D. in subduing Kinross and Fife, as a necessary preparatory movement towards his grand object of reducing the entire northern part of Britain in the following year.

In 84 A.D. Agricola, his right flank supported by his eastern fleet, marching northwards, fought and won his great battle with Galgacus, and this victory gave him command of all Britain. The fleet, by Agricola's orders, sailed round the north of Scotland, took possession of the Orkneys and came into the Irish Channel, surveying the coasts and collecting information by the way. His motive in sending the fleet round was connected with his intended invasion of Ireland; but Domitian, jealous of the great General's fame, recalled him to Rome, and the terse and talented Tacitus had no more to relate of his father-in-law's deeds in these countries.

Though Cæsar spoke of Britain as an island, the Romans had no positive knowledge on the subject till Agricola accidentally discovered the fact by a remarkable event that took place during the Galloway campaign of the year 82. A cohort of Usipean* auxiliaries mutinied, murdered their officers, seized three small vessels and put to sea. The pilots, with true Roman firmness, refusing to aid the deserters, were put to death; and the latter ignorant of navigation, drifted about at the mercy of the winds and waves, occasionally landing on the coast to plunder provisions. One of those vessels actually drifted round the north of Scotland into the German Ocean, and from thence into the Baltic, thus practically proving the insular character of Britain. Some of the wretched men were still alive at the end of this extraordinary voyage, having subsisted on the dead bodies of their companions. Seized as pirates, and sold as slaves, they were soon sent back to the Roman authorities; but on account of their sufferings and remarkable voyage, they were received not as mutineers and deserters, but as heroes and explorers.

Neither Tacitus nor Dion, who also tells us the same story, says where these mutineers started from. But that they went from the coast of Galloway there cannot be a doubt. And as early, accidental discoveries are of great importance to the anthropologist, I may just allude here to a still more remarkable fact related by Pliny, how certain natives of India who had embarked on a commercial voyage were shipwrecked on the coast of Germany and given to Metellius by the King of the Servians. Whether those adventurers had found their way round the Cape of Good Hope or made a north-east passage I need not stay to inquire. The story will be found in the second book.

* The country in which the modern Cleves is situated.

This then is what history tells us of one intended invasion of Ireland by the Romans. After the departure of Agricola, the history of the Romans in Britain is for a considerable time a complete blank; we do not even positively know who was his successor in the Pro-prætorship; but as it is known that he left the province in peaceable subjection, it is supposed in this tranquil state of affairs the Romans passed over into and subdued Ireland. This fancy, for it is nothing more, is founded on the lines in Juvenal quoted by Mr. Wright; for where the historian is silent, the satirist is at least the next best authority. Juvenal, when contrasting the power and progress of the Roman arms abroad, with the shameful and enervating vices prevalent at home, says, "We have, indeed, carried our arms beyond the shores of Ireland." This is just what he says, neither more nor less, and it sounds very like a poetical license. That the Romans may have claimed a nominal sovereignty over Ireland, through the submission of some exiled chieftain is probable enough; but that they ever occupied any part of the island by force is positively contradicted by the utter absence of their usual great public and private works, which ever seem, even at this day, to have been constructed in defiance of time itself. If Agricola had landed with his small force of a legion and a modicum of auxiliaries, what would he have done? He would have built forts and roads, received certain tribes as auxiliaries, and pitted them against the others, and would no doubt have reduced the island to subjection in a short time. But not one trace of a Roman exists on the soil of Ireland, not one fort, one road, one earthwork, one engraved stone; not one of the well-known Roman relics, so plentifully found in England and Scotland, have ever been seen in Ireland. Scarcely even a Roman coin has been found, those *denarii* which the Romans seem to have sown broad-cast amongst their remains in England.

We have, however, a very significant glimpse of the relations existing between the Irish and Romans during the tranquil periods after the departure of Agricola, which is utterly incompatible with subjection on the one side, or domination on the other. Four legions only, with their attendant auxiliaries, were required to maintain order in Britain, and they were permanently posted in the places which they retained till almost the end of the Roman dominion. Of these the twentieth was stationed at Deva, the modern Chester, to hold in restraint the Welsh, the Brigantian mountaineers of Cumberland and Westmoreland, and protect the country from the Irish pirates, who usually landed in the river Dee. The second legion was stationed at the Silurian Isca (Caerleon in Monmouthshire) to keep in check the unconquerable Welsh "mountain-people," and defend the shores of the Severn against the Irish pirates. For the Romans, in their own

estimation at least, were warriors and conquerors, the outside barbarians were murderers, robbers, and pirates. And it appears highly probable that the Roman Retigonum, now the modern Stranraer, commanding the isthmus between Lough Ryan and the Bay of Luce, was a most important defensive post, established to prevent an advance into the interior of Scotland by any Irish piratical invaders who might land at any point between Corsewall and the Mull of Galloway.

Towards the close of the second and early part of the third century was the palmy era of the Roman rule in Britain, which then was certainly the richest and most flourishing province of the whole empire. The abundance and variety of mineral wealth, the luxuriant crops afforded by a virgin soil to even an inferior cultivation, the adaptability of the earths for ceramic manufactures, attracted numbers of adventurers from all parts of the empire to the British shores. Merchants, mechanics, miners, and agriculturists led the way, and were soon followed by professional men, architects, artists and artisans, as labour and industry created wealth and luxury; and then magnificent towns, temples, palaces, villas, baths, and theatres rose up over a peaceable and productive province. It is most reasonable to suppose, indeed, it would be contrary to the very nature of things to doubt that the wealthy, intelligent, mining, manufacturing, and mercantile Romano-British people maintained a considerable traffic with Ireland; and that many of them visited it as political envoys, traders, travellers in search of information, or, with the errant disposition of man, as physicians or handicraftsmen seeking adventure in a country less advanced in civilisation than their own. Ptolemy's description of Ireland, though written in the second century, is surprisingly copious and exact. He tells us of the coasts, inland towns, and native tribes, leaving hydrographical accuracy out of the question, it is probably not too much to say that the Romans knew as much, or even more, of Ireland than we now do of Madagascar.

The early state of what is called Irish art, the interleaved triangle, the star of eight points, the wave and spiral have evidently been acquired from Roman specimens, which may very well have happened without any Roman conquest of the island. A quantity of silver coins, all Roman, with some engraved specimens of silver metal, were lately found in Ireland; these were unmistakably the property of some travelling silversmith. A Roman medicine stamp has also been found in Ireland, denoting that most probably some travelling physician had found his way thither. Some sixty of those stamps have been found in France, Germany, Africa, England and Scotland; but, as I believe, like the bronze swords, not one has been discovered in Italy.

Some of the bronze leaf-shaped swords in the Museum of the Royal

Irish Academy are so sharp as to distinctly testify their readiness for a lethal use even at the present day. There is a remarkable woodcut, the pride of the collection of the late Mr. Douce, representing six Irishmen, with the imprint *DRAWN AFTER THE QUICKER*. A row is just commencing, two of them have drawn their swords, and they are leaf-shaped; those swords that are undrawn, still in their scabbards, represent exactly those which are upon the tombs of the Irish King O'Connor at Roscommon, as engraved in *Walker's Historical Essay*. The engraving shows even the very small handle of the sword, it being held by the person on the extreme right by only two fingers, or at the most three. The features are unmistakably Irish; it cannot be older than the Elizabethan period, and it bears every mark of having been drawn from the quick or living subjects.

The Irish historians relate stories of occurrences that happened in Ireland previous to the deluge, so we may very well leave them alone. General Vallancey in the last century, struck by what he considered the most anomalous circumstance of writers endeavouring to show that the Irish were a Celtic nation, derived them at once from the Magogian Scythians, who, according to the General, were the first astronomers, navigators, and traders after the Flood. They settled first in Armenia, sailed down the Euphrates to the Persian Gulf and Indian Ocean, finding their way into the Red Sea, and eventually into the Mediterranean, where, after sailing round Africa and discovering the Cape 600 years before our present era, they established themselves as Phœnicians at Tyre and Sidon. To a people that had sailed round the Cape the discovery and settlement of Ireland was but a trifle. Sir William Betham, in almost our own time, derives the Irish from the Phœnicians through the Etrurians; and speaking of Vallancey, says: "The result of his labours are an invaluable magazine of materials, of which a critical and judicious writer may avail himself with great profit and advantage."

These words almost seem prophetic in their application to Nilsson's work. He is in fact the critical and judicious writer, who has availed himself with profit and advantage of the results of Vallancey's labours. There is, however, a little known but much better Richmond in the field. One Aylett Sammes in 1676 published a large folio work, entitled *Britannia Antiqua Illustrata*, in which he distinctly derives the early inhabitants of Britain from the Phœnicians. Curiously enough, while the previously-mentioned writers depend particularly upon philology, for the results acquired by them, stating that the language of a nation is the most recognisable of its remains, forming a chain of evidence that cannot be totally lost, displaced, or obscured, that even after the people are gone and lost for ever, it still remains in the names

of places in the country,—Sammes as boldly and utterly disclaims it. He says: "But if in truth I may deliver my opinion, there is no way more fallacious and deceitful than deriving the names of places from the language of the people, for I scarce think there is a town but by fertile heads may be derived from some word or another that is now in use among the present inhabitants; every place yielding something either by situation, soil, prospect, custom, manner, a battle or building from whence they may be deduced."

SPANISH ANTHROPOLOGICAL SOCIETY.

TRANSLATION OF THE PRESIDENT'S ADDRESS.

GENTLEMEN,—The existence in public life of the Spanish Anthropological Society commences to-day, and at so important a moment it seems but natural, that he who has been chosen your President, more from a feeling of friendship on your part than merit on his, should address a few words to you. I feel the responsibility of the undertaking, and without false affectation I can assure you that I hesitated long before accepting a charge whose weight I shrank from having imposed upon me. At length I have yielded to your wishes, but you must be contented to accept the slight sketch I am about to trace out for you, in place of the magnificent picture which some other, more competent than I, would have laid before you.

I appreciate the picture, and would paint it, if I could only realise it to you, as it passes like a lightning flash through my own mind; but, as Foscolo said, in one of his well-known books, "Ah, if I were but a painter!" so now, at this moment, struck by my own weakness, I exclaim, "Ah, if I were but learned!" If it were but in my power I would, with a few magical touches, draw out for you a plan of the voyage we are going to undertake. The spirit of the age, or as it might be well called, the universal passion for truth, has assembled us together to attempt an undertaking of immense magnitude in proportion to the mediocrity of the materials we have at our disposal. But this happens frequently; great deeds are wrought by small means. The child typifies the man; Columbus, in a fragile bark, discovered a new world, and a few poor fishermen, inspired by God, opened for man the gates to Paradise.

Why does this happen? because in reality there is no such thing as uniformity of material; there is no lever, no instrument of physical force, which can equal for marvellous power the strength of thought

and the free growth of intellect. We ourselves are provided with aught else, have only our own free will to carry us through this journey, but we shall arrive at our destination.

But what is our destination? what do we aim at? what do we propose? what horizon is to smile upon us as the goal of our labours. Allow me, though with unsteady hand, to trace on the blank page some lines which you can correct and shape into harmony, as an orchestra, from imperfect preludes, perfects the artistic work, as time evolves the perfect flower and delicate fruit from the seed.

Anthropology is the study of human nature, not of nature alone or humanity alone, it is the synthesis of both ideas. Here, then, we have one solitary ray of light which shall guide us across the vast main of human learning.

Man! indeed a great object, the immense connecting link between two narrow points, all things and nothing, which runs untrammelled from one to the other, now proudly, anon humbly, here boldly and fortunately, there cowardly and miserably, distinguishes him from God and from the mere brute creation, and unites him with both, in unequal proportions, which lives and realises itself individually as well as collectively, having not one single history, yet comprehending a universe.

Man is, in fact, the object of our studies; not man in the abstract as separated from nature, but as bound up within her, living and breathing. Metaphysics, psychology, are beyond the limits of our operations; we may attain to them when we enlarge our limits, but they are not comprehended in our dominions. Our sphere is the natural, the real, the positive, the experienced—this is the atmosphere in which we live, and this limit of the idea of man is the *punctum saliens* which constitutes the definition of anthropology.

But how shall we define nature herself, who has been called in to define the study of anthropology. Nature, like man, is a grand whole (cosmos), her bosom the receptacle of all creation. She is the grand mirror of the spirit, which, when stedfastly gazed at, seems to disappear, and only allows herself to be seen in the immense reflection. She typifies the mystical waters over which the spirit of God hovered, or the ocean, which bears on its surface the crown of light. Nature forces us out of ourselves, into undefined, eternal, and indestructible space, a law of love and attraction; she imposes herself on us, and unites us to herself by a force which is relaxed only to attract us with still greater vigour; a law of imperfection and limit, which, whilst it controls us, excites an antagonism which is the living fountain of inspiration and art.

Nature is so vast, that she has not wanted advocates, who have

pronounced her illimitable, absolute, and eternal, created and creating; the work of God, but working as a god, a pantheistic idea, the reverse of the ideal pantheism of the unity and the spirit. But Nature, vast as she is, does not comprise all; her immensity does not belong to her. Eternity, infinity, force, and life, come from her bosom solely as reflections, as an incarnation in which the material reveals itself, revealing something else. She imposes on others by imposing on herself.

To distinguish and identify then between man and nature is the first task of anthropological science. Man is distinguished from nature, which is his external world, his macrocosm, and at the same time identifies himself with it, because he is also a world, a microcosm. Nature has neither intelligence, liberty, nor responsibility. Man is intelligent, free, and responsible; but, besides that, he requires bodily substance, and so falls into the category of Nature.

Nothing is easier than to make the simple and absolute distinction, or the simple and absolute identification, but nothing more difficult than to draw the line to the exact limit which identity requires, and *vice versa*. And yet, that which is real and positive, is difficult; while the ideal and fantastic are easy. The mind naturally fixes itself on one horn of the dilemma, but to the necessity is opposed another, which convinces by force of reason, gives it impulse, and makes it appear precisely the contrary to what it had for a moment appeared determined.

Thus, carried away as by a whirlwind, we know and understand, affirm and deny, but affirm and deny nearly always too much; this it is which requires examination. Man is not, then, separate from nature, but he has his own nature; he is a natural being, an example in himself of the duality of the universe, he is object and subject, body and spirit. Anthropology studies man, as he naturally is, as an object a body, as the scene in which in fact invisible actors represent the drama of life, voices are heard, forms meet, yet all are echoes which come from vacuum, and which return to one as great, that of an indefinite surface which springs from time, but consolidates itself in space.

Space belongs to us, experimental analysis allows us to divide and subdivide it, and continually to enrich the inexhaustible variety of figures, numbers, and qualities of the things which belong to man generally. The varieties startle us by their prodigious number, everything carefully examined appears different, nothing is exactly identical, no two events, no two contemporary societies, no two human faces are alike. But in the midst of this diversity analysis reigns, law is established, so many discords produce at length harmonious concord in the

ears of the philosopher. Thus the anthropological thread is woven ; the centre we hold in our hands, but the beginning and the end are hidden in the bosom of the Eternal.

We do not profess merely natural history, nor are we excited solely by interest in medicine or chemistry. Let us leave the task of zoological classification to the naturalist, who places man one step higher than the quadrumana ; let us abandon to medicine the weight, the measure, the exterior characterisation of human functions ; let us look on with indifference whilst they discuss life, as some mechanical power ; and finally, let us abstain from interfering with chemistry, in its task of decomposing, transforming, and recomposing all that is possible of the organic substance of man. Discarding thus from the present the direct study of medicine, chemistry, and natural history, in themselves that is, that of organic beings living and sensible, though not intelligent, our object fixes itself on man, not only as material, vegetative, and sensitive, but as such, modified by superior intellectual, reflective, and moral qualities, and not thus even will we analyse him in the abstract, but in the form realised in nature.

We will not encumber ourselves with any metaphysical, logical, or psychological doctrines, but it is our duty to respect them, and not to forget the laws which they impose on us. We ought really to make great advances in our study, although we are overruled by an evil philosophical spirit, just as a good picture does not lose its merit from being placed in a bad light.

But how much more should we gain both in facility and quickness of judgment, and also in a feeling of certainty if we hail the good fortune to lean on solid, unchangeable, and general principles. At some future time, perhaps, we shall gain these principles for ourselves, by means of the problems, well or ill attempted, which we have proposed to ourselves to solve. At all events now, we have no right to wander away from our path, in trying to form and introduce a system which ought to form a part of, and govern us. Let us at least look upon our views as only partial and limited to a certain extent, up to which they are true, although the truth may not positively extend itself beyond the circle in which it rules. The facts which we lay aside will not absolutely prejudice universal order, which we shall only examine in one of its elements, in the grand creation of man with all his rich endowments, leaving the question of the Creator as not to be defined in material form, of whom and whose relations with the created, other branches of science occupy themselves, particularly that science of sciences, philosophy. We will also, and with stronger motives, exclude the religious element from our studies. Faith is not science, though it is compatible with it, and not only compatible, but

in some measure necessary to it. Try as we might, it would be as impossible to destroy it as for evil to supplant good. Science is, and appears antithetical to religious faith, but when united constitute a synthesis indispensable to humanity.

For the present, let us avoid not only all impiety, but even the mis-directed piety which holds out a friendly hand to rationalism. Respecting in every way the opinions of others, we shall acquire the right to have our own respected. In marking out our boundaries, we will not invade the territories of others, but neither will we allow others to invade ours. All that we can discover of the races inhabiting the world, all that is revealed to us by their inanimate remains, all that is hidden in the heart of the earth, relative to man's organisation and physiological functions, belongs to us. These are sufficient landmarks for us to trace out, complete and perfect, all that is possible of the history, not of man as animal only, but of that intelligent being who was the crowning and most perfect work of creation.

From what we already know, and from facts which have accumulated with careful examination, we may judge not only of what has been, but what will be—that is to say, what will be in all probability ; but this can never be converted into certainty, and we must except those innumerable events which the future hides from us, but which will continue to form new successive periods when the existing world of anthropology shall have passed away.

Immense task ! which does honour to human activity, and which after having completed like the symbolical serpent the circle of human knowledge, appears to study itself. That such an aspiration ever had birth, shows a mature reflection, a life and vigour, that justifies the hope that our labour may really bear fruit. Let us go still a little deeper into this first definition of anthropological science ; let us define the principal lines more strongly, so that some of the points which claim your attention may be seen, if only in distant perspective.

The various questions which anthropology comprises must first of all be conveniently arranged.

I will not enter into arguments, as neither the time nor the place permit it ; but I will point out to you (and perhaps remembering some of those ideas I have just touched upon, you will agree with me without the necessity of stronger proof) that an anthropological question should be well planned, that started with the supposition of complete ignorance on the subject, and that would conclude without aspiring to attain complete knowledge. To know something more, to verify experimentally some of the thousand more or less plausible hypotheses which are evoked by passing events, should be our unceasing object, the aim of our scientific life, which we are certain to attain in some

measure, though never in its totality. What answer should we give to the question? Is man one of the animal species, or is he something distinct from all animal species? The distinction between man, and all species purely animal, is a granted and indisputable fact; but the external characteristics which establish it have their limits, taken as a whole, of which analysis deprives them without being able to separate them entirely, or to exhaust their number or diversity.

In our conception, man is not what he is to the naturalist, merely an animal of an elevated grade in the scale of animal life; for us, he is a rational being; but starting from this basis let us study his rationality in a natural state, and let us seek for positive and external facts, to enlarge and unfold the ideal and Divine power which has painted material substance with such eloquent touches, giving form and substance to human history.

Shall we ever solve the great question?—No. In the first place, because it is already solved as much as it ever can be—that is, partially so; and secondly, because it is not granted to us, that we should extend knowledge until it reaches those confines which Eternity has reserved to itself. Since both ideas appear realised by experience, man must necessarily be distinguished from the animal, but experiments are inexhaustible, and always limited by others still farther off, and analogies and differences successively unfold themselves in a panorama, vast in proportion, as anthropological questions are increased and deepened.

Such is the result which sustains our hopes and activity; a sufficiently satisfactory result, without having recourse to imaginary hypothesis. Let us not therefore desire a positive separation, or a positive union between man and animals, disregarding what we know now because it is only partial and relative. The idea of *absolute nature* is the most absurd possible, causing us to wander about disconsolately seeking what we are carrying in our own hands. The man who was exclusively animal, or not animal at all, would not be a man. It is only by examining to the utmost the identity and distinction in the different ranks of mankind that we can attain rest from our labours.

But what do events themselves say? How can we best observe those analogies and distinctions which resemble those palpitations of the ocean which we call ebb and flood, or those febrile pulsations, which, under the form of waves, heave the bosom of the giant liquid mass. Physics, chemistry, anatomy, physiology, natural history, point at one and the same moment to this constellation of science, and at each moment are surprised by some new change and alteration. Ideas take form, knowledge increases; but, following in her steps, ignorance springs up as a necessary limit to her progress. Mystery

restrained in one part bursts forth in another, but in the end we are gaining more data, greater extent of knowledge, more minute distinctions, and more elevated generalities ; such is our task.

Placed in the centre, let us ask from each of the auxiliary sciences in their turn, to explain to us that enigmatical phrase, which reproduces itself so tenaciously, and which will not return to chaos, till it has produced a ray of light in its struggle with the world. Absolute truth does not show us even her garments, excepting in glimpses, which are snatched with greedy solicitude by most patient seeking, but these glimpses are a kind of gala dress for us, and increase in magnificence and beauty as we accumulate them, skilfully using them to cover the inborn nakedness of our minds.

I have already discussed too long the question of the analogies and differences between man and animal ; I will now briefly indicate some others ; but, in my opinion, all should be carried on in the same spirit, and be governed by the same method of arrangement, discussion, and solution.

Is there unity or plurality of the human race? How can we reconcile its unity with the diversity of organisation, languages, customs, history, and religion? Granted the *unity*, how many groups constitute it? How have they arisen? What has been their development? How have they been mixed and confounded together? Up to what point have they endured, and can they endure without change?

The hypothesis of unity possesses the charm of universal brotherhood, that of plurality isolates and separates us instantly by the supposed variety of origins. The first begins with one single trunk, from which the branches spread ; the second plants its branches in the earth, and then raises them into one common trunk. Which is truth? which is absolute fact? This only revelation can declare and faith establish. Science looks backward as well as forward, to the past as much as to the future, and takes an indefinite course resting at will in those spots which circumstance makes available. But the journey is pleasant and profitable, and supplies us with knowledge and beliefs which are none the less valuable for being scarce.

In this, as in other questions, faith and science, which at any moment may appear divided, always end by reconciliation, as the ivy is separated from the trunk that supports it, only to turn around again with stronger ties.

Yes ; at the present time, human nature is a unity as well as plurality, brother and enemy, members united by love but alienated by war ; this is in various degrees and with distinct conditions which analysis determines.

It may have been, or may be in the future, more or less identical

and distinct, and it may *actually find itself* represented at any epoch by a single pair, or even by one undividual, which is most probable. Science, enlightened as she is by investigations, always open to fresh events, should answer this. But there is no possible answer beyond tradition, and that, obscured by the night of ages, partakes of the character of revealed dogma.

In the meantime, let us not wait for science to give us clear and direct evidence of the unity of origin. We are all brothers, we are all of one flesh; for even the animals, even inanimate matter, identifies itself with us under some aspect; with how much stronger bonds, then, are we united to our fellow creatures. Nevertheless, brotherhood will only produce fratricide, unless the form of division which rose in the depths of patriarchal unity, does not flow in harmony to perfect light which illumines our yet imperfect societies, and which, rashly carried from the field of ideas to that of impossible practice, destroys the chimera of socialism.

For our part, without lifting the veil too much, let us content ourselves with the accumulations of the vestiges of ancient races; their analogies and differences, the gradual transit from one to the other; their preservation, etc., constantly proposing to ourselves new problems for solution, as the only way of not falling into error. The investigation of the past is most especially interesting to us in an historical point of view, but it is still more important in its application to the future. What are the laws for the development of humanity? Can we flatter ourselves with the positive hope of incessant progress?

Without submitting historical evolutions to the action of unchangeable laws, we cannot do otherwise than confess at once, that duty imposes continual improvement upon us as a moral law, and that if *good* is not necessarily increased every day, at least, the wish that it should, ought to exist amongst us, in preference to the imperfection which in all cases forms our normal condition.

In view of this moral law, the Anthropological Society imposes on itself the obligation to seek for those physical and external conditions which shall lead to the greatest possible perfection of the human species. This vast object for meditation and study, is sufficient in itself satisfactorily to occupy our active labours.

Around this centre of investigation are grouped a multitude of subjects, each one more interesting than the other: the influence of geographical, geological, and climatic laws; that of food and beverages; that of the hybridity of races and families; their respective longevity; the statistics of the duration and sudden changes of human life, when sustained under different conditions; the same preservation in distinct conditions; the antithetical limits to this proposition; the influence of civilisation, of

acclimatisation; the advantages and defects in industrial, commercial, and agricultural pursuits; the spread of popular diseases; the sanitary condition of the world: all these and many other questions, determined with increasing clearness, permit laws to be dictated, which secure to the human race a more prosperous life, and also one more real and complete in all its functions.

Thus, a science which began seemingly studying problems for pure amusement, which studies the analogies and differences of languages, discovering productive systems in them, such as the Chinese, Indo-Germanic, and Semitic, corresponding to all possible aspects, to the phonetic realisation of thought (material juxtaposition, intussusception, and lively flexion), which continues studying written language till, with Champollion, it penetrates to the mysteries of the hieroglyphics, and, in our own day, proposing to itself the interpretation of the signs inscribed on the "megalithic" sepulchres, which seeks in skulls, utensils, and monuments of European towns, the distinction of the Celtic, Gallic, German, Basque, Arabic, and African origins, and the designations of more ancient: such a science, we say, will end by proposing to itself problems of more immediate application, whose solution would constitute the moral, intellectual, and physiological conduct of man, constituted as he is in society.

By so many diverse roads, the progressive unfolding of the points which define the idea of human nature, leads us to the real and positive characterisation of the species, or of man in general. We started with a vague, but necessarily a distinct, notion of rationality, reflection, and morality, united synthetically in an organism, and progressing on every side. We come at length to a vaster science, one more realised in its details, though still incomplete, because it never can be completed and perfected. . . .

Bring canvas and colours, hasten to collect photographic apparatus. Every day seize some new attitude, some gesture, some peculiarity of that Colossus called humanity. But let your pictures be exact and not all venially done, and do not look at them yourself in other light than as images of a reality, always indefinable, however we may have the power of defining it partially. It is a glory to our age that we have succeeded in perfecting these pictures to a marvellous degree. But let us observe one delicate point; let us not forget that to the idea we are indebted for a geometrical characterisation of facts. The invention of photography in our time seems a providential revelation to our minds. At first, it was thought photography would dethrone the pencil of the artist. Vain idea! The sun knows no history, has no idea. The ideal springs spontaneously from intelligence, and is realised by the hand inspired by genius. What does this fact teach

us? that it is a necessity that inspiration aid our science also, moderating the illegitimate pride of a knowledge whose truth even may always be error.

Scientific faith should be ours, in proportion as we strengthen ourselves in the vast fields of reflection; but, subjective faith should have its flight moderated, according to Bacon, though it should not be entirely restrained. Science is simply the atmosphere in which liberty lives, and when she is stifled by the might of knowledge, knowledge dies with her, like the organic structure which gives way crushed under the weight of the material.

But I cannot forget that there are still some modifications to be made in the plan I have presented to you. We are Spaniards, and it is our duty to occupy ourselves principally with the application which may benefit Spain in these grand anthropological questions.

How much we might, and ought to do! Our country, the boundary of Europe, is her bond of union with other continents, and offers one of the most advantageous situations to make herself the centre of the world. Thus we find that all the great changes of humanity have been unequivocally manifested on her soil. Invaded from the earliest historical times by the numerous nations inhabiting the coasts of the Mediterranean; so it was afterwards by the tribes from the north, and the Saracens. From her shores the discoverer of the New World started; and on her soil, at the beginning of the present century, were the magnificent scenes of the grand international drama represented. Spain thus offers grand objects for study in the diversity of the races which have peopled her, in those varieties which still inhabit her and her colonial possessions, in the results of crossings and acclimatisation, in the customs and traditions of so many varied populations and in the anthropological influence of so many distinct laws.

Our soil also presents the united conditions of the polar and equatorial climates, an immense variety of characteristics and productions. On one side, extensive coasts, rich rivers, and most fertile plains of fruitful land; on the other, arid and barren tracts and snowy peaks, and chains of mountains which isolate many provinces; others, which are easily communicated with by means of navigation; some, populations active and industrious; others, indolent and apathetic, different qualities of the mind; in fact, sufficient statistics to define the anthropological ideas without leaving the soil of Spain, and that, too, with a vigour and precision which other countries could not pretend to.

Our language, from the standpoint of ethnological etymology, is also an inexhaustible source for curious investigation. In one part of our dominions, we still preserve the ancient language of the "Basques". We have a language derived from the Arian, and which has passed

through the Latin, Provençal, and Romance forms, taking something from the Semitic peoples, whose civilisation maintained with the Indo-European the most obstinate and tremendous struggle that the world has ever seen. How a language, conformable with the most noble type for the necessities of ulterior progress has proceeded from this lingual knot, only a most patient and careful analysis can discover.

Such, and so many studies applied to our own country will naturally lead to the most important practical results. Of what physical perfection is our race capable, in order that moral and intellectual improvement may be facilitated? Up to what point is emigration to America, Africa, and the Oceanic Islands useful, which depopulates our provinces and returns us individuals modified by other climates? What reforms are necessary in the hygiene, marriage laws, education, and the means of subsistence for all classes? How can the greatest commercial and industrial benefits be conferred without bringing attendant evils?

It is quite certain that all these abstruse problems, all these agitating questions of real existence, in proportion as they affect man, offer a subject of consideration to any Society professing to study man, not merely under a psychological or material aspect, but in proportion as his nature reacts upon art, upon thought, and, above all, on the immaterial and spiritual nature which is united in him and which also suffers from any consequent reaction.

We are observers, men of positive science; but let us study absolutely for humanity. Do not let us dictate laws; but let us collect the materials for composing them. If in this collection we are happy enough to be of use to our country, accelerating those measures which will raise it to a higher state of civilisation, it will be no small share of glory we attain, and at least the satisfaction of our own consciences will never be wanting; and, after all, that is the most pleasing and lasting reward of duty fulfilled.

What more can I say, gentlemen, but to ask pardon for my insufficiency. This is not the occasion (nor would I if I could) to unfold to you more exact ideas, new and wonderful facts, or brilliant and abstruse problems, and philosophical propositions. I know no more of anthropology than the wish to study it. But I have simply told you the manner in which, in my opinion, the general question should be argued, in order to have a free and open field for study. I have not aspired to found any new thing, but only to offer you the ground free from rubbish, level and clear, as a faithful servant would present to his master the canvas on which he is to paint.

So many words for a blank canvas; in truth, I feel that I am merely apologising to you. Call it, then, what you like; but I think at least,

that the rubbish accumulated on the old edifice of human science, on a foundation already weary of sustaining it, required some force of will to discover a new and solid foundation, yet without entirely destroying the character of the old. For the present, I believe I have proposed a means, which, unworthy and slight as it may be, I shall be content to have obtained. If you like to call my proposition the method and system of anthropology (I say method and system purposely, because, in a measure, they are one and the same thing); if you like to consider it so, then my discourse will not have appeared so barren to you. I shall now conclude, with one observation on method, and likewise avail myself of the occasion to give you, by way of epilogue, a brief formula of philosophical doctrine, which is, in my opinion, the true one.

The method or system in anthropology, and, generally speaking, in all philosophy, if it is to be worth anything, must begin by confessing itself undetermined. That is of no one method in particular. Afterwards it gradually defines itself, and this is method; the result is the definition, and this is system. But system can neither define or be defined entirely, and method consists in acknowledging this in defining the undefined, in doing and undoing.

It is, then, method to do and undo; and I, by undoing, have prepared and arranged for you, who with strength and intelligence may do and re-make better.

Will, method, and system. At the commencement, I counted upon the first; to-day, I flatter myself we shall have the second; and these premises granted, I do not doubt but that we shall attain some doctrine, and form a scientific body which will not be an entirely unworthy part of the universal system. Let us, then, try in freedom and confidence to fulfil this duty.

You have associated yourselves, hoping everything from your own strength, without asking extraneous aid, or trusting to official support. You have asked from Government only what they have already granted—tolerance and legal liberty! This point of support is enough, and if to that has been added, as it has to us, unexpected benevolence, an approbation of our scheme, in all senses valuable, which you are going to realise, you will return a hundredfold this proof of deference by services to your country and scientific progress, and have fairly won this good opinion which you have known how to deserve, and which you will not fail to justify.

MATÍAS NIETO SERRANO.

PROCEEDINGS OF THE PARIS ANTHROPOLOGICAL SOCIETY.*

M. BROCA offers some additional observations on plaster casts and on the errors to which the subsequent dilatation gives rise. He took this opportunity of rectifying the calculation respecting the capacity of Schiller's cranium. From the measurement of the plaster cast, he was led to fix the internal capacity of the cranium at between 1856 and 2150 c.c.; but as every diameter had probably increased two millimetres, the above calculation was too high, and the internal capacity must be reduced to from 1802 to 2072 c.c. The cranium of Schiller would be, even after this reduction, one of the largest ever measured.

Statistics of Greenland.—M. Boudin read a communication he had received from M. Etzel, who had published at Stuttgart, in 1860, a work entitled, *Groenland Geographisch und Statistisch Beschrieben aus Dänischer Quellenschriften* (Greenland Geographically and Statistically described after Danish Documents).

According to the last census, taken on the first of October, 1855, the population of Greenland amounted to 9644 natives and 248 Europeans. The increase of the native population since 1820 is indicated by the following table:—

1820	6,286 inhabitants	1840	7,877 inhabitants
1824	6,331 "	1845	8,501 "
1830	6,997 "	1850	9,185 "
1835	7,356 "	1855	9,644 "

Within a period of twenty years, namely from 1833 to 1853, in a population of 2,504 belonging to the parishes of Godthaab, Frederickshaab, and Julianchaab, the average mortality per month was:—

January	3.5 deaths	July	4.3 deaths
February	3.2 "	August	6.8 "
March	3.5 "	September	6.3 "
April	2.7 "	October	7.6 "
May	3.1 "	November	7.5 "
June	4.1 "	December	4.8 "

Respecting the causes of the deaths, M. Etzel enumerates them as follows in 4,770 cases:—

Died whilst engaged in seal hunting	415
Otherwise drowned	59
Frozen to death	8
Violent deaths	29
Died in consequence of being ill-treated	2

* Continued from No. xii, p. 108.

Accidents	37
Poisoned by eating seal-flesh.....	36
Disputes	5
Suffocated during sleep	16
Old age	364
Throat diseases	21
Phthisis	230
Hæmoptysis	84
Chest diseases	139
Pleurisy	471
Influenza	622
Typhus and typhoid fever	16
Whooping-cough	96
Dropey.....	30
Gout and rheumatism	3
Diarrhoea.....	11
Stones in the bladder	2
Cancer.....	6
Suicide.....	3

About one hundred Danish labourers and seamen, says M. Elzel, marry native females. These marriages during a century have given rise to a pretty numerous race of cross-breeds of various degrees, so that it is not always easy to distinguish them from the natives. They have, nevertheless, generally a European physiognomy. The greater portion of them resemble Southern Europeans as regards the hair and the colour of the skin. Some hybrids have light hair and a fair complexion, and can scarcely be distinguished from Northern Europeans. Fine figures are occasionally seen among the males. Intellectually the Mongrels approach the natives. The Greenland women married to Danes never learn the language of their husbands, still less do their children learn it. It is stated that the descendants of Danish fathers are more cleanly and more submissive to their parents than the native children.

In reply to M. de Moussy, who wished to know whether M. Elzel makes mention of epidemic variola among the Greenlanders, M. Boudin said that M. Elzel simply stated that variola existed in Greenland.

Who are the Celts?—M. Broca, in proposing this question for discussion, said,—In several of the discussions the terms Celts and Celtic race very frequently occurred. But the numerous speakers used these expressions with such different acceptations that opinions nearly identical appeared contradictory and *vice versa* opinions perfectly opposed to each other appeared to coincide. For these reasons it appeared to him necessary in the interest of science to provoke discussion on the various acceptations of the term Celts, so that when a speaker made use of the term it might be known what kind of Celts he meant. Within historical times there existed a people called Celts,

who occupied that portion of Gaul which lies between the Garonne and the Seine, and who stopped for some years the progress of the legions of Julius Cæsar. Such as take the name of Celts in this historical acceptation say that the Celts were above the average height, and that they had dark hair and eyes. . . . These are the *Celts of history*. But Cæsar was not the only writer who spoke of Celts. Many writers, from Herodotus downwards, have spoken of the existence of such a people, but in a vague and contradictory manner. The country of the Celts they believed was somewhere in Central and Western Europe. Sometimes they placed it above the Pyrenees, or on the sources of the Danube, the banks of the Po, or even on the shores of the North Sea. . . . These are the *Celts of tradition*, a people who are found almost everywhere, and can be fixed nowhere. Again philology has established that the Gauls and the Belgian Celts spoke of not the same language, at least nearly allied languages, akin also to the languages of the British islands. . . . This group of languages required a name, and they were all called *Celtic languages* even before it was known that they were of Asiatic origin. The language of the Gaulish Celts is that which is least known, only a few words having been preserved. The name of Celtic languages being now sanctioned by use, all the people who speak or have spoken these languages are now called Celts.

There yet remain the Celts of *Archæology* and the Celts of *Cranio-logy*. As regards the Celts of Archæology, he would distinguish those of archæology twenty years ago and of the present archæology. Twenty years ago all the monuments of Western Europe anterior to the Roman period were ascribed to the Celts, namely, the dolmens, the tumuli, the menhirs, the cromlechs, and all implements, whether of bone, stone, or metal; but the progress of archæology has proved that monuments twenty years ago reputed Celtic date from quite a different era, and that some of these had been raised by people who were ignorant of the use of metals. These were considered by archæologists as the primitive inhabitants of Europe, and the use of bronze was supposed to have been introduced by more civilised peoples. As a name must be given to these emigrants, they have been called Celts, inasmuch as the languages called Celtic are the most ancient Indo-European languages. The prehistoric period formerly called Celtic had thus been subdivided into two distinct epochs: the Celtic period commencing with the bronze age, and the pre-Celtic period corresponding to the stone age. There remain further the Celts of Craniology.

The illustrious Retzius, by comparing the crania of the stone period with those of the bronze age, found that in the region of the Baltic the former were brachycephalic and the latter dolichocephalic, whence he

inferred that the pre-Celtic populations were, without exception, brachycephalic, and that dolichocephaly had been introduced in this part of the globe by the first Indo-European conquerors, that is to say, by a people whom, according to their language and their archaeology, he designated Celts, among whom he included all the populations of North Central and Western Europe with dolichocephalic crania, such, at least, as existed prior to the arrival of the Teutonic and Germanic races. Dr. Thurnam, on the other hand, gives as the result of his archaeological researches that in Great Britain all the monuments of the bronze period had been constructed by a brachycephalic people. Thus whilst the Celts of Retzius are dolichocephalic those of Thurnam are brachycephalic. The denomination Celts has thus received a variety of contradictory acceptances. The Celts of history are the peoples of the central confederation of the Gauls.

The Celts of philology occupy a much more extended area, as in them are included all peoples who spoke or still speak the so-called Celtic languages.

The Celts of archaeology are the people who inaugurated the bronze period in Europe. And finally the Celts of craniology have, according to Retzius, introduced dolichocephaly among the brachycephalic autochthons of Europe, whilst, according to Thurnam, they introduced brachycephaly among the dolichocephaly of Great Britain.

All this shows the necessity of examining and discussing the following questions:—

1. Who are the ancient Celts, and in what part of Europe have these people, whose language and knowledge are unquestionably derived from Asia, first appeared under the name of Celts?

2. Is any proof existent that any people bearing this name have ever occupied or invaded Denmark, the Scandinavian peninsula, and the British Islands?

3. What are the physical characters of the ancient Celts? Were they tall or short, brown or fair, brachycephalic or dolichocephalic?

The President announced that these questions would be discussed at some future meeting.

Human Hair as a race character. By M. Bonté. This paper was, in point of fact, a critical analysis of M. Pruner-Bey's treatise on the same subject, which has already appeared in the *Anthropological Review*. We extract a few of the introductory remarks, and the conclusions arrived at by the author; hitherto, observed M. Bonté, hair had not been supposed to possess a specific character, by the aid of which, we might, in an irrefragable manner, determine race.

It was known that the hair of the Negro is elliptic, that of the Mongol round, and that of the Aryan, more or less oval. It was

known that in some races the *pulp* is more or less absent ; in short, the hair was only considered as possessing a specific character for the determination of different original stocks.

So the question stood in 1863, when appeared the treatise of M. Pruner-Bey inserted in the memoirs, and in which he lays down the following principle :—"A single hair, when it presents the average form, characteristic of the race, may enable us to determine it." But soon flinching from so bold an assertion, he added :—"Without pretending to such a degree of certainty, it is nevertheless indubitable that the hair of the individual bears the stamp of his origin."

It is this conclusion which M. Bonté had tried to verify, and he regretted to say that he was far from arriving at the same results. After examining in detail the various propositions laid down by M. Pruner-Bey, M. Bonté concluded in the following terms :—

We are indebted to our colleague for the patience with which he has analysed and measured the hair of different races, but such as have read his memoir carefully, can only come to the following conclusions :—

1. The section of the hair of any race, or of any individual, is far from bearing the stamp of his origin, since, even according to M. Pruner-Bey, we find in the same race, and frequently upon the same head, different forms ; and also in the section of the hair of very different races, the most perfect similarity. If hair be any character, it is only so as regards the determination of what we call *stocks* : the hair of the Negro, the Mongol, and of the whole race, differ unquestionably.

2. The question is still in the condition in which it was left by Browne.

3. It appears to be impossible to lay down principles so absolute as those formulated by M. Pruner-Bey from observations, confined only to a few subjects. In fact, in 16 races out of 37, these observations refer only to one head of hair, and in 12 to two heads of hair.

Science is encumbered with many errors, because it adapts facts reposing upon slender foundations. M. Bonté concludes by expressing the hope that the question would be further examined, as his only wish was, to elicit the truth and nothing but the truth.

M. Broca said that without constituting himself the defender of M. Pruner-Bey, whose absence he regretted, he could not help recognising the importance of the treatise which M. Bonté had subjected to such severe criticism. Before M. Pruner-Bey's time, the hair had been chiefly studied as regards length. Pruner-Bey studied the circumference, and by means of transverse sections, he discovered

many curious facts; the conclusions may perhaps be erroneous in some details, owing to the small number of individuals examined. But the contradictions pointed out by M. Bonté signify little. There exists in Anthropology no absolute character. Even the craniological characters are, despite their importance, not absolute. Among the most orthognathous races are found prognathous individuals, and we cannot expect to find a greater fixity in the characters drawn from the structure of the hair. But these characters possess, nevertheless, great importance, which is shown in the treatise of M. Pruner-Bey.

One great fact has been demonstrated by microscopic examination, namely—the elliptic form of the transverse section in the hair of the Negro, whence it results that frizzling is fundamentally and essentially different from curly hair, as seen in other races. This character is the more important, since Prichard, from some superficial microscopic examinations, asserted that the hair of the Negro resembled that of the European. By demonstrating that what was called the wool of the Negro, had not the structure of lamb's-wool, Prichard thought to have established the identity of the hair in all races. The researches of M. Pruner-Bey have rectified this error.

After a short discussion, the Meeting adjourned.

June 16, 1864. Dr. Gillebert d'Hericourt, on his return from Algeria, presented to the Society a Memoir, containing anthropological observations on 17 Kabyles, 6 Mozabites, 8 Town Arabs, 23 Tribe Arabs, 4 Kouringlis, 12 Negroes, 6 Jews of Algiers, and 2 Chinese. He brought with him 23 specimens of the hair of all these individuals, and a beautiful collection of drawings of tattooing, copied from nature. The Memoir contains also observations on the hair, eyes, colour of skin, stature, conformation of hands and feet, and on the degree of resistance to cold, possessed by the Arabs and Kabyles. Memoir remitted to a Committee, composed of MM. Anselme, Perier and Bertran.

M. Pruner-Bey announced the reception, from Commander Duhoussset, of 40 specimens of hair of Kabyles.

M. Pruner-Bey replied at some length to the strictures of M. Bonté on his treatise on human hair as a race character; but as M. Pruner-Bey promised that he would shortly publish a second and more extended series of observations on the same subject, we pass it over for the present.

July 7, 1864. The Secretary-General, in announcing that by an imperial decree the Anthropological Society has been pronounced an establishment of public utility, said such a recognition is ordinarily only granted to institutions which have existed for many years. The exception made in our favour abundantly proves the utility of the work we have undertaken. The thanks of the Society are especially due for

the favour to the enlightened views of M. Duruy, minister of public instruction, who by his writings has rendered important services to the science of anthropology.

A New Process for Solidifying Friable Substances. By — STAHL.
Paris, 1864.

M. Pruner-Bey called attention to the utility of M. Stahl's process in the preservation of ancient crania. He produced a bone of a fossil reindeer, broken asunder, one portion of which in its natural condition crumpled into dust, whilst the other saturated with M. Stahl's liquid acquired the hardness of recent bones.

Dr. Moreno Maiz, late surgeon in the Peruvian army, presented to the Society a perfect Peruvian mummy and other objects found in a *huaca* (grave) of the ancient inhabitants of the northern coast of Peru. The mummy is of the race denominated by MM. de Rivero and Tschudi, Chinchas. The territory formerly occupied by this race extended from the desert regions of Tumbes in the north to the sands of Atacama in the south, between the tenth and the fourteenth degrees south lat. The three vases sent with the mummy are called *huaqueros*.

The President recommended a careful examination of this mummy, for which purpose a committee was appointed.

Dr. John Thurnam (who was present at this meeting) offered to the Society a perfect cranium found in a long-barrow at Dinnington (West Riding of Yorkshire) of the stone period. This cranium is very dolichocephalic, as shown by the following dimensions:—

Diameter of antero-posterior maximum	205
„ transverse maximum	143
„ vertical maximum	144
„ frontal minimum	96
Total occipito-frontal curve, from the nasal suture to the posterior border of the occipital foramen	413
Transverse bi-auricular circumference	460
Horizontal circumference	561

The cephalic index is from 69-75. The internal capacity is enormous, amounting to 1818 centimeters cubes. This cranium presents a considerable development of the occipital region.

Is Religiousness a Human Character? M. Pruner-Bey made the following remarks on this question, which had been touched upon by M. Boudin in his paper on serpent-worship. If by religion we understand the relations in which man thinks that he stands to an invisible world and the attribution of supernatural powers to inorganic and organic bodies (demonology and idolatry) there can scarcely be said to exist any people altogether deprived of religion. And if religiousness be the faculty of conceiving or adopting any religion, then this faculty is inherent in human nature.

With regard to the inhabitants of Southern Africa, especially the Kaffirs and the Bechuanas, Livingstone loudly protests against the ideas spread by the Moslems on the absence of religion amongst these people; and M. Casalis, in his work on the Bassutos, a branch of the Bechuanas, gives a detailed account of the religious system of these nations. Nevertheless all travellers in these countries have been struck with the total absence of temples and places devoted to *public worship*. Moreover, which is better, to have none at all or a sanguinary worship? This protest does not, however, exclude another series of facts. There exist, no doubt, among human races living more or less in a state of nature, individuals, and probably whole tribes, in whom religious ideas are but little developed or are absent(!); just as amongst us there exist materialists and spiritualists. Still all this by no means invalidates the rule, and man in a savage state may, in his own fashion be as religious, if not more so, than civilised man.

Report by M. Alix on a memoir submitted to the Society entitled *Cavernes du Périgord, objets gravés et sculptés des temps préhistoriques dans l'Europe occidentale*.

This memoir, of which an analysis had been presented to the *Académie des Sciences* by M. Milne Edwards, has for its object to demonstrate the existence of man in Central France at a period when that part was inhabited by the reindeer and other extinct animals. All the localities which have been explored by MM. Lartet and Christy are situated in the *Arrondissement de Sarlat* (Dordogne).

The most important discoveries have been made in the grotto of Eyzie, and in deposits near the slopes at Langerie-Haute and Langerie-Basse.

After a detailed account of the objects found, such as flint implements worked in different fashions, weapons made of bones or antlers of the reindeer, teeth of the *Megaceros hibernicus*, finely engraved utensils, etc.—the report continues thus:—The facts we have enumerated relate to two separate questions, the one geological, the second anthropological. It belongs to geology to determine the age of the beds in which the objects were found. The anthropologist might infer from this the antiquity of the human race upon the globe.

The discoveries of MM. Lartet and Christy prove that people who knew not the use of metals inhabited our country contemporaneously with animals now extinct. The question as to the period when this population and this extinct fauna lived contemporaneously will only be solved when geologists are no longer divided in this respect.

Anthropology asks other questions. What was the nature of the people the contemporaries of extinct animals with respect to their intelligence? Were they essentially inferior to their successors, or were

they their equals, if not in knowledge, at least by their natural qualities? Does science force us to abandon the hypothesis of the primitive dignity of man, that hypothesis which inspired Milton when in his poetical enthusiasm he depicted Adam as the most perfect of men, and Eve as the fairest of women?

"So hand in hand they passed, the loveliest pair
That ever since in love's embraces met;
Adam the goodliest man of men since born
His sons, the fairest of her daughters Eve."

The researches of MM. Lartet and Christy show us people who manifested their intelligence by their designs, engravings, sculpture, who produced works of art and gave a regular form and a curve of a certain beauty even to common utensils. These people thus possessed a sense for the beautiful, so that M. Lartet says we find amongst them real artists, and the most civilised nations need not blush to acknowledge them as their ancestors.

In conclusion, science has, by the research of MM. Lartet and Christy, acquired the following three facts:—

1. Men have inhabited France contemporaneously with the reindeer.
2. They have lived at a period anterior to that of which the Greeks and Romans have written.
3. These men, whatever may have been the simplicity of their habits, have left behind them remarkable proofs of their intelligence.

Discussion on the Celts.—M. Girard de Rialle said, our honourable Secretary, M. Broca, has proposed the question, "Who are the Celts?" I reply, they are the first tribe of the Aryan stock, who arrived in Europe long before the Germans, the Pelasgi, and the Slavonians.

These first Aryans certainly did not call themselves Celts. Cæsar gives that denomination only to those confederate Gauls who were localised between the Seine and the Garonne, in a wooded country (the Celtic word is derived from the Gaelic *koille*, forest). But, right or wrong, the ancients denominated Celts all inhabitants of Western Europe.

Latterly all the peoples who spoke Gaëlo-Kimric languages—that is to say, the Gauls, the Belgians, the Britons, the Scotch, and the Irish—were called Celts; in the same way as the Bactrians, the Persians, the Medes, the Armenians, the Kurdes, etc., are said to belong to the Iranian race, from the name of a province *Iran*, which word signifies the earth properly so called. Again, the Greeks, the Italiots, the Eperotes, the Thracians, the Phrygians, the Ionians, are called the Pelasgian race, from the name of one tribe, the members of which called themselves Pelasgi.

The Celts are Aryans, there is no doubt about this—their languages

prove it. They consist of two groups, the Gaëls and the Kimris. The idioms of these two groups resemble each other so much, that they can only belong to peoples nearly allied. The Gaëls were the first who arrived in this part of Europe; for the traditions, clear enough as regards the Kimris, are silent as regards the Gaëls. The Gaëls established themselves in Europe, in Gaul, England, and Ireland. The language of the Highlanders and the Irish is a purely Gaëlic dialect. These Aryans, no doubt, found in Europe an autochthonic race. Were these the people of the stone period? for the Gaëls belong to the bronze age. And this I prove by the Gaëlic language, in which are mentioned four metals, the names of which evidently belong to the primitive Aryan, though corrupted in the Celtic languages. The Celts knew *airain* (brass), the name of which was among the Germans and Celts afterwards given to iron (steel). *Airam*, *ayas* in Sanscrit, stands for *ADYAS*, itself a corruption of *ADAS*; so that the knowledge of metals existed in Arya at an immeasurably remote period. *ADAS* stands for *A*, purative, and *DAS*, subdued (*dompté*); *äirain* (brass). *AYAS* is therefore the unsubdued, i. e. the metal hard *par excellence*, which we find again in Rome and Italy under the names *ais*, *aes*; it corresponds with the Gothic *eisarn* (Aryan, *ADYAS*). This Aryan word becomes in Gaëlic *IARunn*; whilst the Gothic *eisarn* becomes the German *eisern*, and the English *iron*.

Copper is in Gaëlic called *coiremor*, which reminds us of the Sanscrit *kamala*, which has the same signification. The interverson of syllables is frequent in our race, as well as the interchange of the soft liquid *l*, for the hard liquid *r*. This word, then, seems to be derived from the radical *KAM*, to love. *Coiremor* and *kamala* thus signify the loved, precious metal.

Finally, when we compare *AIRgiod*, silver, in Gaëlic, with the Greek *Ἀργυρος*, the Latin *Argentum*, the Sanscrit *R'g'aton*, the Zend *erezata*, we can only derive them from the same radical *r'g*, "to glitter", and conclude that all the Aryans knew, before their separation, a white glittering metal—silver. We are likewise, as linguists, obliged to unite under a common radical the Gaëlic *oir* and the Latin *aurum*, to be convinced that the primitive Aryans possessed objects in gold.

[To be continued.]

Miscellanea Anthropologica.

ANTHROPOLOGICAL SOCIETIES.—The Anthropological Societies of Spain and of Moscow have both commenced their labours. We have given the opening addresses of the former Society, and in our next we hope to be able to give a translation from the Russian of the first proceedings of the Moscow Society. We are also in a position to announce that there are several other Anthropological Societies in course of formation. It would be premature to give details at present, but in our next we expect to be able to record the birth of more than one Anthropological Society, not only abroad but in Great Britain. The arrangements of the Manchester Anthropological Society, we understand, are nearly completed, and Dr. Hunt has been invited by that Society to give an inaugural address. Similar societies are being formed in other large cities of this country. We understand that these societies will be independent bodies, although affiliated on the parent Society.

ANTHROPOLOGICAL SOCIETY'S MEETINGS.—The following arrangements have been made for reading papers before the Anthropological Society during the present quarter:—On April 3rd, John Cleghorn, Esq., "New Reading of Shellmounds and Graves in Caithness." Robert I. Shearer, Esq.; Joseph Anderson, Esq.; George Petrie, Esq.; and Dr. James Hunt "On Human Remains from Keiss, Caithness." On April 17th William Bollaert, Esq., "Introduction to the Anthropology of America". Captain R. F. Burton "Notes on an Hermaphrodite". On May 1st, Major S. R. I. Owen "On Hindu Neology". Dr. John Shortt "On a Living Microcephale". E. Sellon, Esq., "On Sacti Puja". R. B. N. Walker, Esq., "Notes on the Fecundity of Negro Women". May 15th, Hodder M. Westropp, Esq., F.A.S.L., "On Analogous Forms of Flint Implements". Colonel Beauchamp Walker, Lieut. Ardagh, and Mr. C. Carter Blake, "On a Kjökkenmödding at Newhaven". Capt. R. F. Burton "On a Kjökkenmödding at Santos, Brazil". Rev. W. H. Brett "On a Tumulus at Essequibo". On June 5th, John Beddoe, Esq., M.D., "On the Headforms of the West of England". June 19th, Dr. Berthold Seemann, V.P.A.S.L., "On the resemblance of inscribed stones at Veraguas to those in Northumberland".

The lamented death of Mr. George E. Roberts on the 21st of December last has led to the formation of a small subscription amongst his numerous friends in the Anthropological and Geological Societies, with a view to engrave the portrait which is issued with this number of the *Journal of the Anthropological Society of London*.

The second volume of the *Memoirs of the Anthropological Society of London* will soon be published, and will be copiously illustrated with woodcuts.



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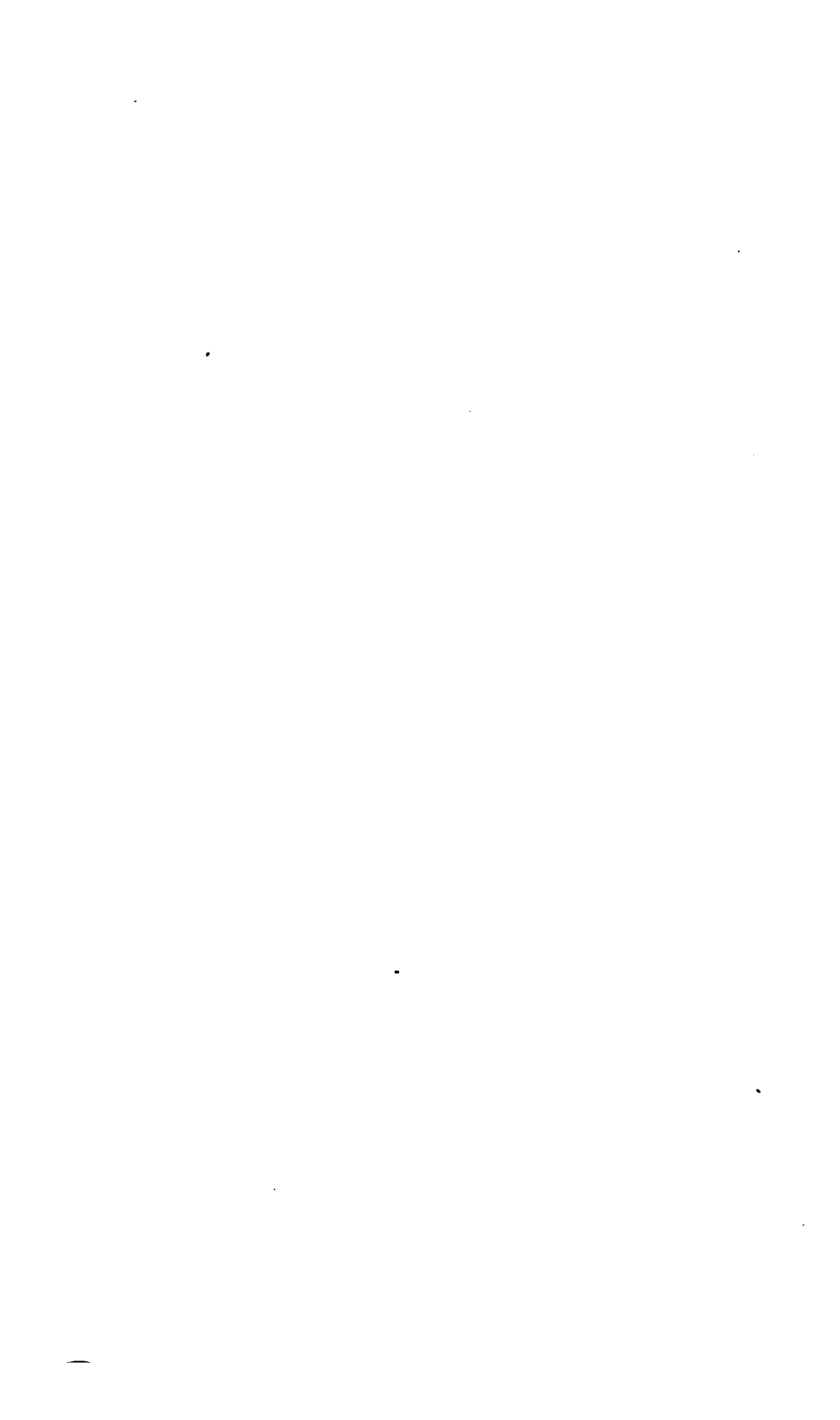
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ON THE COMPARATIVE ANTHROPOLOGY OF SCOTLAND.

THE earliest accounts which we possess of North Britain are to be found in the writings of the Romans ; and, although these are of considerable importance to the man of science, who makes man his study, yet, upon the whole, he finds them rather vague and meagre, so far as regards that kind of information which he especially requires. Tacitus describes the Caledonians as a red-haired, large-bodied people ; and, from that loose observation, infers them to be of German origin ; he assigns also a Spanish origin to the Silures on account of their dark features. Writers who seem to have had but an indifferent knowledge of the nature of analytical inquiry are not certainly high authorities to serve as guides for a modern scientific investigator. Indeed ; it may be doubted whether history so-called is more serviceable than romance or tradition to him who would seek light on the distinguishing characteristics of races, nations, and peoples. That red hair was conspicuous among the ancient Caledonians we may believe, just as it is among modern Highlanders ; but that it was more prevalent than in our own times we may very well question. The considerable proportion of red hair that abounded among this people produced a strong impression on the Romans, and led them to conclude that a prominent characteristic was a universal one ; a fallacy of which careless observers are guilty in all ages and in all countries.

The Caledonians, according to Tacitus's own account, were armed in a very different style from Germans ; carried long swords, and were so expert at throwing the dart, that had not the Romans closed with them in such a manner that their long swords were of little avail, the victory was sure to be theirs. Writers of the middle ages mention bows and arrows as weapons in the use of which the Highlanders

were extremely skilful. Nicolay d'Arfeville, a French writer, in a work published by him in the year 1583, expresses himself respecting them in the following terms :—"Their arms are the bow and arrow and some darts, which they throw with great dexterity, and a large sword, with a single-edged dagger. They are very swift of foot, and there is no horse so swift as to outstrip them, as I have seen proved several times both in England and Scotland." From these remarks we readily perceive how much the Highlanders of the sixteenth century correspond in character with the Caledonians who encountered Agricola and the Romans at the foot of the Grampians. But one weapon is there, the dagger, which was wanting in the arms of the Caledonians. Did not the contests with the Romans lead to the invention of the dirk, that weapon which was such a favourite with the Scotch Gael of the middle ages? The swiftness of foot ascribed by Nicolay d'Arfeville to the Scotch Gael of the sixteenth century, is ascribed by Harald Gille, son of Magnus Barefoot by an Irishwoman, to the Irish Gael of the twelfth century. On mentioning the extraordinary swiftness of the Irish to some persons at the Norwegian court, Magnus, the king's son, doubted his word. Harald repeated his assertion,—“It is true that there are men in Ireland whom no horse in Norway could overtake.” So to prove his saying he runs a race on foot with Magnus the king's son mounted on his swift runner, and outstrips him thrice; and it is said in the Saga, “Then Harald ran quickly past the horse and came to the end of the course so long before him that he lay down and got up and saluted Magnus as he came in.” On this occasion King Sigurd addressed his son in the following words :—"Thou callest Harald useless, but I think thou art a great fool and knowest nothing of the customs of foreign people. Dost thou not know that men in other countries exercise themselves in other feats than in filling themselves with ale and making themselves mad, and so unfit for everything that they scarcely know each other."

Swiftness of foot, then, seems to have belonged to the Gael at various periods; and this agrees with the superior development of foot and leg which Dr. Knox, and other able writers on race, have clearly shown to be characteristic of Celts. The love of strong drink seems to have been a failing of the old Norwegians of the days of Harald Gille, as it is at this day of many of their mixed descendants in the British Isles.

In considering the original population of Scotland before Teutonic invasion took place, it is desirable, so far as it can be done, to investigate the qualities by which it was distinguished from that of other countries, and to what extent those qualities agree with, or differ

from, those which are peculiar to the present inhabitants; also, to what extent the present Scotch differ from pure Teutonic nations in manners and character. On the decline of the Roman empire, the south-east of North Britain was invaded and seized upon by Saxons and Angles, while portions of the west and south-west were conquered by the Scots from Ireland. As these Scots constituted an important element in forming the nationality of Scotland, some inquiry into their history may throw light upon both Scottish and Irish ethnology.

The people anciently called Scots, called themselves *Gaedal*, *Gael*, or *Gaoidhil*, as Gaelic speaking Scotch and Irish do at the present day. They called themselves, also, *Feinn*, and sometimes *Sciut*. These three names are, in old Irish writings, applied to the self and same people. The word *Gaedal* is formed from *cia*, a man, and *deal*, a root, meaning light, clearness, or whiteness; the name, therefore, signifies a white or fair man. *Deal* or *dheal* (in Gaelic *dh* and *gh* have the same sound, which bears the same relation to *g* hard that *ch* in German does to *c* hard or *k*) has passed into *geal*, white or clear. In the Gaelic language, whatever is loved is figuratively called *geal*, white; and whatever is hated, *dubh*, black; so from *geal*, white, comes *gaol*, love, friendship, relationship; hence Gael, one of the kindred, a fair man, from which the Latin Gallus. Celtæ is from *gaolta*, relatives, men of the same nation. It may be interesting, in connection with a race which has retained its characteristic name for thousands of years, to trace the close analogy subsisting between the numerous words derived from the root *deal*. *Dile*, love, friendship; *dileas*, beloved, faithful; *deal*, friendly; *deala*, friendship, kindred; *dealan*, lightning; *dealradh*, brightness; *dealt*, dew. By mutation of the initial letters peculiar to the Celtic languages, the *d* in these words becomes, according as the word is affected, *dh*. It will further illustrate the transformations which the name Gael has undergone to produce instances of the manner in which it is spelt in the Dean of Lismore's book. The dean's orthography is peculiar, and differs widely from the old Irish and modern Gaelic spelling. "*Gaywill, Geil, Zeillew, Gyle,*" are the various forms of the name in the dean's book. A foreigner, or one who is not of the kin, is called *gall*, a word rather closely allied in sound and spelling to its opposite. It is spelt in the Dean of Lismore's book, *Gyill, Zall, Gallew, Gaule, Zallew*. Its root is probably *dall*, blind, without light or lustre. Kindred words, *gal*, grief, weeping; *galar*, disease; *goill*, a harsh expression; *gailionn*, coarse weather. It is rather a curious fact that many words in Gaelic which express opposite ideas vary but slightly from each other. This fact illustrates beautifully that love of minute discrimination which is so strong a trait in the character of the Celtic races. The

following are examples of this peculiarity. *Deal*, light ; *dall*, without light ; *fèile*, generosity ; *foill*, treachery ; *aill*, agreeableness ; *oil*, disagreeableness ; *fiar*, true ; *fiar*, crooked, false ; *nèamh*, heaven ; *nimh*, poison ; *caoin*, amiable ; *càin*, to traduce ; *coir*, justice ; *coire*, harm ; *ceart*, right ; *cearr*, wrong ; *sgath*, slaughter ; *sgàth*, shelter, protection ; *gean*, pleasure ; *cean*, want.

The other name by which the people have been known, *Feinn*, is identical in meaning with the preceding. The singular form is *Fiann*, and another plural form is *Fianntai* or *Fianntaidh*. *Fionn* means white or fair, and *Fiann* is a white or fair person ; *Feinn* or *Fianntai*, signify, therefore, the white or fair people. This is the name given to the old Gael in all their ancient ballads—the ballads which supplied Macpherson with materials for those works which have gained such a wide world celebrity. It is also the name of one of the ancient Gallic nations, who were skilful navigators, had superior ships, and fought gallantly by sea and land against Cæsar and his Roman legions. They had intercourse with Britain, whence they obtained auxiliaries against the Romans, and there is little room to doubt that the Gallic Veneti were the same race with the Scotch and Irish *Fianntai*, or Gael. The name of their chief town, Dariorigum, is Gaelic ; it is *doire righ*, grove of kings or chiefs. Although, generally speaking, the Celts are not disposed to seafaring pursuits, yet there are varieties of them to which a sea life is more or less attractive. The ancient Irish visited the shores of Britain, in the time of the Romans, both for the purpose of plunder and commerce ; and, at a subsequent period, found their way into Iceland before Norsemen had ever set foot upon the soil.

Scot, Sciut. This name, by which the Gael of Ireland were known to the Romans, and by which all the natives of Ireland were known for several centuries after their conversion to Christianity, signifies the ruling men, or the men of power. *Scot* or *sgod*, is the sheet of a sail, and figuratively implies power or superiority. The Gael, *Feinn*, or *clanna milidh*, were the ruling people or *sguit*. The word is somewhat allied to *sgath*, a shield, a word used, also, metaphorically for a warrior or ruler. The word *Scot* has softened down into *Seod*, which now means hero.

The names given to a people by strangers are to be cautiously handled. Whether the name *Scot* was exclusively applied by the Romans to natives of Ireland may be doubted ; but it would be a great mistake to suppose that the race to which the name of Scots was applied in Ireland did not abound in Britain before the arrival of the Dalriads. The first name given by the Romans to the bravest and most prominent people in North Britain, was *Caledonii*, *Gael*

daoine, the fair or kindred men, which, it will be observed, is identical with one of the names, *Gael* or *Gaedal*, by which the Irish Scots were distinguished. And as it may be inferred from Tacitus's remarks that they were fairer than the rest of the Britons, the name *Gael daoine*, or *Geal daoine*, was in every respect appropriate; indeed, from Tacitus's description, and from the accounts of the ancient Gael or Feinn handed down by tradition and old Irish writings, it must be concluded, inevitably, that both peoples were of the same race, and that, in this respect, the Dalriads did not differ from the Picts, on whom they encroached. The name of Picts, latterly applied to the Caledonians by the Romans, is from the Gaelic word *feadh*, an army. The *Gwyddhil ffichti* of the Welch is *Gaidhil feachda*, that is, the Gael of the army, or the Gaelic soldiers. *Cruithne* or *Cruithneach*, is another name that is rather puzzling, but it is nothing more or less than the Gaelic equivalent for Brython, and might have been applied in the past as *Gael*, *Eileanach*, *Eireannach*, and *Albannach*, are applied at the present day. An illiterate Highlander distinguishes himself from a Gaelic speaking Connaught Irishman by calling himself *Gael* and the other *Eireannach*. He distinguishes his own language from that of the Irishman by calling it *Gaelig*, while he calls that of the latter *Iris*, a corruption of the English word Irish; on the other hand, the Irishman distinguishes himself from the Scottish Highlander by calling himself *Gaoidheal*, and the latter *Albannach*; or *Eileannach*, an islander, if from the Hebrides. In the past, in the same manner, a Gael from North Britain would be called *Cruithnach* or *Briton*, in Ireland, and so would be confounded with other British races. Whether the Irish *Cruithne* were ancient Scottish Gael or Cymry may admit of some dispute; but they are as likely to have belonged to the former race.

Language of North Britain previous to the Dalriadic invasion.

With regard to the language of North Britain at the time of the arrival of the Irish Scots, there are good grounds for inferring that it was a dialect of Gaelic, having more in common with Cymraeg and other British dialects than the language of Ireland. In the east and south the language was probably intermediate between Gaelic and Cymraeg. It may be observed here that there are no grounds for believing that all the dialects of South Britain were nearer Cymraeg than Gaelic. The Bretons do not call themselves Cymry, and their language they call Breton; while they call the French language Gallec. It is extremely probable that all the old British languages passed into one another by imperceptible shades, and that the old dialects of the south and east of Scotland would form connecting links between the Gaelic and Cymraeg branches of the Celtic stock.

The part which the Dalriads played in North Britain seems to have been similar to that played by the Normans in England at a subsequent period. They were Scots, chiefs or ruling men, not hewers of wood and drawers of water; they did not enter North Britain to remove the native population, but to become its chiefs and rulers. In the past a ruling people that would not toil as menials could not but necessarily encroach. Conquerors they were, and sought merely to remove other chiefs to make room for themselves. The Dalriads did not manage to master North Britain in a single battle as the Normans did with the southern portion of the island several centuries later, but where they did not conquer by the sword they prevailed by intellectual superiority. They were Christians, and the Picts were not; and having been somewhat humanised by the influence of the new religion, they granted an asylum to one of their own royal race, who sought a conquest of a different kind from that of Fergus Mor Mac Eirc—the conversion of the Picts to the Christian religion.—This was *Calum Cille*, or St. Columba, one of the O'Neill dynasty which ruled Ireland for five centuries. Having obtained Iona for his residence, *Calum Cille* there trained moral soldiers, through whose aid he effected a conquest more important in its results than the physical territorial subjugation of the mailed warrior, as the conversion of the Picts was followed by that of the Saxons of Britain, and from Iona proceeded many of those Scots who laboured in the seventh, eighth, ninth, and tenth centuries to enlighten the nations of the continent in letters and religion. As the Normans were found everywhere in England, before the arrival of the conqueror, as bishops, heads of monasteries, etc., so the Dalriads were found everywhere in Pictavia as religious teachers and ruling men long before the union of the two kingdoms under Kenneth Mac Alpine. It is usually supposed that the people of Argyle, Galloway, and Ayrshire are the descendants of the Irish Scots, and the northern Highlanders those of the Picts; but this theory requires to be considerably modified, as the Dalriads, as has been already observed, were men who sought to rule but not to toil. The Dalriadic infusion of blood extended to every part of Scotland, although, doubtless, more remained in those parts near Ireland than extended to other districts; but it was nothing more than a fresh infusion of Gaelic blood, and merely increased the quantity of that which formerly existed.

Anglo-Saxon Dialect of Scotland. In taking a view of Scotland we find it inhabited by two peoples who speak two different languages;—the one Anglo-Saxon, and the other Gaelic;—and this fact has led many writers to draw erroneous conclusions regarding the races with which this country is peopled. In examining Scottish history, on

which much light has been thrown of late years by Messrs. Skene and Innes, and, more lately, by Mr. W. Robertson, in his *History of Ancient Scotland*, it will be found that the ancient bounds of the Gaelic language included the whole of the country north of the Frith of Forth, besides the most of the south-west. From the south-east the Anglo-Saxon dialect extended north and west, and gradually gained ground owing to its having become the court language, and being, besides, the speech of the more fertile districts of the kingdom. The language was changed, but not the race; but the Saxon, through time, was gradually intermixed with the Gael and other British races that abounded in the land; while the invasion of the Danes in the east infused more Teutonic blood into the people, and helped to modify the language which was spoken by them. The lowland language has borrowed many words from Gaelic and British, and has undergone the corruption which a language undergoes when it becomes that of an alien people. Idiomatic phrases are the test of original purity of language. A blundering use of *shall* and *will* is so characteristic of Scotchmen, both Highland and Lowland, as to become the shibboleth by which a North Briton is known after having lost the most of his dialectical peculiarities. A celebrated essayist asserts that a London apprentice boy can use these words more correctly than they are used by Hume and Robertson; and there are many fairly educated Scotsmen who can hardly appreciate the delicate absolute *shall* of Shakespeare's English *Coriolanus*, and, doubtless, it would be a puzzle for the old Roman also. A glance at Barbour's *Bruce* and at Burns's poems will readily show how much the Anglo-Saxon language of Scotland has altered from the days of Barbour to those of Burns. The language of Barbour is good Anglian; that of Burns is one peculiar to Scotland—a new speech formed out of a foreign one by a people who had formerly used a different tongue. Those words associated with feeling are sometimes retained when almost every trace of the old language is lost; and hence broad Scotch has retained the old British words, *dad*, father; *mammy*, mother; as well as the Gaelic words *ingle* (ainneal), a fire; *beltin*, the first of May, etc. The same process which has gone on in Gaelic with regard to borrowed words has affected the whole broad Scotch—that is, a breaking down of the consonants. In Gaelic, Scripture names have altered much the same as in French;—Moses has become *Maois*; Adam has softened into *Adhamh*, pronounced *Aav*; Solomon into *Solamh*, pronounced *Solla*, etc. In broad Scotch all words ending in *l* have lost the final letter; thus, full, fall, careful, frightful, have changed into *fu'*, *fa'*, *carefu'*, *frightfu'*; the consonants are also lost in the middle of words—wonder, thunder, London, are transformed

into *Lon'on, thun'er, won'er*. From these, and other analogous mutations, the proportion of vowel sounds to consonants is greater in Lowland Scotch than in English; a fact which clearly shows how a foreign language acquired by a people is affected by the characteristics of the one which it had displaced. Mr. Ellis, in his *Essentials of Phonetics*, makes the following remarks on the Lowland Scotch:—"The great difficulties of pronunciation centre in the numerous vowels, in which the Scotch is even richer than the French if the nasal vowels be excluded." This preponderance of vowels is also peculiar to Gaelic; and, like French, it has its series of nasal ones. It may be observed that all the vowels are nasal, both in Scotch and Gaelic, before *m* and *n*.

The languages usually spoken by Celts imply that they belong to races fond of precision and universality. The orthography of Scotch and Irish Gaelic obeys one rule—which is, that if one syllable of a word ends with a broad vowel the next must begin with a broad one; and if with a small one the next must begin with a small one. There are five vowel letters altogether, of which three, *a, o, u*, are called broad, and two, *e, i*, small, from the peculiar character of the sounds which they represent. The following are instances of this rule, which admits of no exception: *iongantach*, wonderful; *amaideach*, foolish; *figheadair*, a weaver; *eireachdail*, handsome. In Scotch Gaelic, the accent of all words not compounded, is on the first syllable, and all such words are monosyllables, dissyllables, and trisyllables. In Welsh mostly all the words are accented on the penultimate; indeed, the Celtic mind seems to seek the absolute in everything; rules, laws, and governments complete in themselves and independent of exception, leaving no room for doubt or discussion. Like French, Italian, and Spanish, modern Welsh and Gaelic have no neuter gender, a fact which indicates that the races that speak these languages are strongly emotional. Like French, the adjective is placed after the substantive in Welsh and Gaelic—the universal before the particular, implying races more deductive than inductive in intellect. A future tense distinguishes Welsh and Gaelic from English and German, as it does Italian and French. The mutation of the initial consonants in Gaelic and Welsh would seem to have an analogy to the silent character of final consonants in French words before other words beginning with consonants. Both peculiarities may be traced to a love of euphony in the races that speak the foresaid languages. Imaginative races cling to inflections of speech, which express past and future time; so Scotch Gaelic has lost its present tense, but retains its past and future. The past and future are the regions through which imagination takes her flights; the present is the centre

round which memory and observation revolve. A future and conditional tense are common to both French and Gaelic :—

FRENCH.	GAELIC.	ENGLISH.
<i>Future.</i>	<i>Future.</i>	
Je vendrai,	Reicidh mi,	I shall or will sell.
<i>Conditional.</i>	<i>Conditional.</i>	
Je vendrais,	Reicinn,	I should or would sell.

Races may change their language and adopt that of an alien one, but the acquired tongue is sure to be modified to accommodate the mental requirements of those whose speech it has become. The French language, manufactured out of Latin, is as Celtic in character as Welsh or Gaelic ; the structure of the Spanish indicates a Celtic element in the people, and a Basque scholar could, perhaps, show that the speech of Spain is as Celtiberian as the people. The Irish, who have lost their old speech, retain the *brogue* of the old one, along with many of its idioms ; while Dumfriesshire and Galloway men have often mistaken Argyleshire people for natives of their own districts, and many of the inhabitants of the northern counties, whose mother tongue is English, speak it with as strong a twang as the Gaelic-speaking Highlanders of Inverness-shire. The Scotch are not two nations, but one consisting of two peoples, who are one mixed race, with the original elements mixed in various proportions, and speaking two different languages. As Scotch nationality is altogether of Celtic origin, and had a vital existence before Scandinavian invasion took place, the Celtic characteristics have been first discussed before entering upon those of Teutonic origin.

Types. The east and west of Scotland present peculiarities of form and feature widely differing from each other ; but extremes meet here as in other things. Many of those peculiarities of form, features, and complexion, are shown by scientific inquiry to be intrusive, and traced by historical research to an original source. Wonderful, indeed, and multifarious, are the features, forms, and complexions, presented by the various districts of Scotland. But pervading the whole, science discovers a network by which all these are united. The north-east of Scotland and the west, notwithstanding the wide difference which is observed in the features of the population of both, still present bodily shapes and countenances which are amazingly like each other. Whence this diversity and identity ? and how is the matter to be explained ? Is it peculiar to all countries ? Do Norwegians, Danes, and Swedes present such diversities ? Do Laplanders ? do Esquimaux ? do Chinese ? do Japanese ? From what distinguished travellers tell us in their writings, and from our own limited observations, we can very confidently say no. But in entering upon this

argument, the question is suggested, what is a type? to which the reply is, that it is a peculiar form of body susceptible of variation, as any mathematical curve, such as an ellipse or parabola is. There may be an infinite variety of ellipses, hyperbolas, and parabolas, as well as of other curves; but the mathematician is always able to distinguish the one kind of curve from the other, even when arcs of different ones are combined. So it is with the types of the human form. Once having got a hold in the mind of the lines that constitute an elementary one, it can, henceforth, be followed in its various gradations, and when it intermixes with others, it can be traced in the same manner as the different parts of a figure, made up of portions of various curves, could be traced.

With regard to Scotland there is one type to be observed among its mixed race which can be found elsewhere absolutely pure, and that is the Scandinavian. Sweden, Norway, insular Denmark, the north of Jutland, and Iceland, are inhabited by a race which may be considered nearly pure; so that by comparing the Norwegian type with those prevailing in Scotland (the Norwegians being the purest Scandinavians), we shall be able to ascertain the extent to which the Scotch nation has been modified by the infusion of northern blood. But at the outset it will, perhaps, be preferable to direct attention to those types which were indigenous before historical Scandinavian invasions took place; that is the types usually called Celtic. In the Highlands two types, not Teutonic, may be almost everywhere observed, and these are decidedly dominant ones. As that type which is historically Celtic is not absolutely decided, I would call the one dolichocephalous, and the other brachycephalous Celt; not that the latter is, perhaps, absolutely brachycephalous, but relatively to the other it may be called so. The dolichocephalous type is frequent in the isles, very conspicuous in Man and the Southern Hebrides, the western portions of Ross and Sutherland; the brachycephalous in the north-eastern parts of Argyle, in Perthshire, and the northern Highlands. There is a third type found occasionally everywhere in the Highlands, rather frequent in the outer Hebrides, very prevalent in the west of Ireland, and not seldom met with in the Lowlands of Scotland; and as it is not a dominant one, seldom being seen when pure but among those of inferior station, it may be as well at the first to discuss its distinctive features. Of this type the portraits of Sancho Panza will give a good idea. The stature is generally low, although sometimes tall, with dark skin and complexion; the head is long, low, and broad; the hair black, coarse, and shaggy; the eyes black or dark brown, or grey, with fiery lustre; forehead receding, with lower part of face prominent; nose broad and low; eyebrow

running off obliquely from the nose ; feet not well shaped ; legs short and much bent. Warmth of feeling, fierce temper when aroused, and a considerable amount of cunning. Very fond of money, which individuals of this race manage to hoard amidst apparent poverty and wretchedness. Diligent and industrious when it can be clearly seen that gain shall be the result ; otherwise indolent and indisposed to application.

In Ireland and the Highlands of Scotland this race is found mixed in various degrees with the two previously mentioned, and with the Scandinavian ; but in the Highlands of Scotland the proportion which it bears to the other races is inconsiderable. The first type I would consider the truly Celtic one, to which belonged the Galli of the old Roman writers and the Celtæ of Cæsar. The dolichocephalic Celt is of various sizes, but often tall ; he is of various complexion, ranging from fair to dark ; the colour of the skin varies from a ruddy white to a swarthy hue, and is sometimes rather dark ; the shape of the body is often graceful ; the head is high and long, often narrow, and can seldom be called broad in proportion to the height and length ; the face is frequently long, and the profile is more or less convex—the convexity being sometimes so little as to approach a straight line ; the lips are usually full, often thick, and more or less projecting ; the chin and lower jaw are obliquely placed, and the contour of the lower jaw, taken from its junction with the neck, is but slightly curved, and looks often to the eye as if a straight line ; the chin sometimes approaches roundness, but is seldom round, and generally has something of the shape of a trapezoid ; the forehead, viewed in profile, gradually increases in prominence from the coronal region towards the eyebrows ; region of the face, from the external orbital angles to the point of the chin, long—a characteristic of which the old Gael, Feinn, or Scots seem to have felt rather proud. (See “Lay of Diarmaid,” *West Highland Tales*, translated by J. F. Campbell, Esq.) The nose is frequently large and prominent ; eyebrows prominent, long, slightly arched, sometimes closely approaching a straight line ; cheekbones large and prominent ; eyes more frequently grey and bluish grey, but sometimes dark grey and dark brown ; lustre of the eye strong, but tempered with a peculiar softness of expression ; hair reddish yellow, yellowish red, but more frequently of various shades of brown, of which yellow is the ground colour ; sometimes, when it appears altogether black, a yellow tinge is discovered when closely examined ; not unfrequently the colour is almost a pure red or yellow ; when mixed with the second or third type the hair is coal black, but hardly ever so when pure. The leg and foot are usually well developed, the different parts being very proportionate ; the

thigh is generally long in proportion to the leg, the instep is high, and the ankle is well-shaped and of moderate size ; the step is very elastic and rather springing, the heel being well raised and the knee well bent in walking, and that to such an extent, indeed, in some cases, that as the individual progresses the head descends and ascends. Rather quick in temper and very emotional, seldom speaking without being influenced by one feeling or another ; very quick in perceptive power, but less accurate in observation than the Scandinavian. Persons of this type are clear thinkers, but deficient in deliberation. They are often endowed with a fertile and vivid imagination ; they love the absolute in thought and principle, dislike expediency, and are strongly disposed to centralisation. Disposed to make no allowance for opinion or doubt, and dissatisfied until they rest in conviction. Strong sympathy for the weak side, which they are too ready to believe is the right one. Although very patriotic, this race is strongly biassed by universal sympathy, strongly moved by chivalrous notions and glorying in suffering for what they believe to be a right cause. Disposed to a sentimental melancholy, from a strong love of that which is past and gone, and a vivid sympathy with misfortune and suffering, but always taking a bright view of the future, as the sentiment of hope is strong in them. The talented among them are often brilliantly witty and eloquent ; they love the animal kingdom, and sometimes excel in zoological science. In No. 10 this type predominates, and is mixed in various degrees with the Scandinavian, in Nos. 2, 3, 4, 5, 12, and 13 ; and with the brachycephalous Celt in Nos. 7 and 9.

Brachycephalous Celts. In these the head is broad and rather square ; the profile is straight, with broad and large cheek-bones ; the chin is frequently prominent and angular, or pointed ; the nose is generally sinuous ; and the lower jaw is always narrow in proportion to the upper jaw ; the forehead is broad and square, sometimes rather flat ; the face tapers rapidly from the cheek-bones to the chin ; hand square, with prominent finger-joints ; calf of leg large, thick, and strongly developed ; foot and ankle well formed ; legs generally short and more or less bent ; chest square and broad ; lips usually lying close to the teeth, sometimes, but not often, prominent ; complexion dark or sallow ; skin swarthy or brown ; hair reddish-brown, red, and frequently raven black ; eyes far in, often small, seldom large, dark grey, dark brown, or black. Great circumspection and forethought, strong passions and feelings, over which there is good control, but which burst forth violently if much tried. Strongly attached to friends and relations ; very clannish and patriotic ; and little disposed to mix freely except with their friends, intimate acquaintance, and

countrymen. Strong national pride. Generally economical and prudent. Rather apt to take gloomy views of the future. Will bear no insults to their creed, clan, or country. Not so impulsive as the dolichocephalous Celt, but fully more fervent; being rather disposed to brood long over afflictions, losses, and insults. Strong thinkers; but not so imaginative as the forementioned race. A strong vein of humour is characteristic of them; as flashing wit and vivid pleasantry are of the other. It is from this race that the Scotch derive their cautious and clannish character; and it is its mixture with the preceding one that supplies the "*ingenium perfervidum Scotorum*". They glide along with a shuffling gait, the body progressing as if carried; the step is very elastic, and the foot traces a curve as it moves along, coming to the ground with the greatest imaginable ease. In No. 8, this type is very conspicuous; it predominates in Nos. 7, 9 and 11; in No. 11, however, the chest is partly of the Scandinavian type.

The Saxon invasion of Britain was followed in the eighth century by that of another people—the Norsemen. These attacked the east of England and Scotland from Denmark; while from Norway, in the ninth and tenth centuries, they descended upon the west of Scotland and east of Ireland, which they seized and conquered; establishing their sway in this manner among the Celts, intermixing with them, and so effecting a union from which—very unlike a political one—there can be no repeal. Norwegians and Danes are a seafaring race; so that the anthropologist who happens to reside near the sea-coast of the Highlands of Scotland, has ample opportunities for comparing the pure type of Norway and Denmark with the mixed one of Scotland. He can take his observations of the crews of Norwegian and Danish vessels, as well as of those of French ones; and so can compare Norwegians, Danes, and Frenchmen with Highlanders, so as to be able to ascertain how far they agree with, or differ from, each other. He has also ample opportunities of comparing Welsh and Cornish miners with Highland ploughmen, shepherds, sailors, and mechanics.

Scandinavian Type. Stature various; seldom low, frequently tall. Skin generally pure white, with fair and florid complexion. Shoulders strongly and largely developed. Tall individuals have long arms and legs; mostly all have long arms. Hair flaxen and sand colour, from which it passes into various shades of brown. Eyes blue and bluish-grey; occasionally hazel and brown; larger and more prominent than in the Celtic type, but flatter and less lustrous. Eyebrows more arched, and not generally so prominent as in the Celts. Profile usually straight; forehead between round and square, well arched horizontally. Face square or oblong, else tapering in a curve towards the

chin ; contour arched, hardly presenting any angularity. Cheek-bones broad and flat. Nose usually of average size, but sometimes large, varying from being slightly sinuous to being considerably aquiline. Mouth well formed ; sometimes small, seldom or ever large, with slightly pouting lips ; lips, however, sometimes straight, and lying in towards the teeth ; often thin, but seldom thick. Chin often prominent, and nearly semicircular in shape. Lower jaw strongly arched, so that it appears to the eye to join the neck as a curve does its tangent. Walk, not seldom awkward, but usually firm and decided. Leg thrown forward in walking, with little bending of the knee or raising of the heel. Foot strongly formed, and often broad, but frequently low in the instep and thick in the ankle. Bones of the leg strongly developed, but calf not in proportion. Strong digestive organs, which give immense physical energy to the race, and account for the proverbial eating and drinking propensities ascribed to them. Deliberative and cool ; doubts numerous, and convictions few. Very accurate observers ; being never biassed in their observations by emotion or prejudice. Powerful local memory, which gives the intellectual portion of the race a talent for geometry, astronomy, and navigation. Impartial in their decisions ; not because they are more conscientious than other races, but that they are fond of truth, in fact, and scorn to be biassed by emotion or feeling. Strong in attachment, but not equally so as the Celts ; and, although less irritable, not so ready to repent or forgive. Excessively fond of personal independence ; to secure which they will encounter the greatest difficulties and hardships. Often rather rough ; but mostly always respectful in manner. Rather dogmatic in opinion ; but very tolerant so far as regards that of others. Fond of the vast and grand ; but rather disposed to turn the marvellous and mysterious into ridicule. Possessed of a genial vein of humour, which hardly ever forsakes them in danger or suffering. Immense firmness and self-reliance, which neither torture nor death can shake. Nos. 1, 3, 4, and 6, are specimens of this type in its purest Highland form ; in Nos. 2, 5, 12, and 13, it is mixed in various degrees with the dolichocephalous Celt.

Intermixture of Types. The various types here described are hardly ever found pure in Scotland. When it is said that a person is of the Scandinavian type, it is merely understood that this type predominates in him ; for no Scotchman, Englishman, or Irishman is Scandinavian in the same sense that a Norwegian, Dane, or Swede is. Everywhere the Scandinavian type is found intermixing with the Celtic ones in various proportions ; but in stronger proportions in all those districts where there is access by sea, and where good harbours abound. In Islay, Colonsay, Mull, Easdale, Lismore, in Stornoway,

in Lewis, and in Harris, the Scandinavian type is very conspicuous. In the northern Hebrides, the dark complexion and eyes of the brachycephalous Celt, are observed combined with the features and form of the Scandinavian. On the small island of Minglay, south of Barra, the dolichocephalous Celt, mixed in different degrees with the Scandinavian, is the most prominent. In the islands of Barra and Uist, the race is principally a mixture of dolichocephalous and brachycephalous Celts, with here and there a sprinkling of Scandinavians. The third type described in this paper, frequently abounds in various degrees of intermixture with the others. In the west of Sky, the Scandinavian type is very predominant; about the middle of the island, the people seem to be half-and-half, Scandinavian and dolichocephalous Celts; while in the east, dark hair, dark features, and the peculiar characteristics of the brachycephalous Celt become apparent. In Ayr and Galloway the dolichocephalous Celtic type is frequent; in Lanark and Dumfries, the brachycephalous type is found mixing in various proportions with the dolichocephalous, the Saxon, the Frisian, and Scandinavian types. In Aberdeenshire, Banffshire, Kincardineshire, and Murrayshire, the people are principally a mixture of Scandinavians and brachycephalous Celts, with a sprinkling of the other races. In Kintyre, the Saxon and Frisian types are observed mixed with the Celtic and Scandinavian; a fact which may be accounted for by the colonisation of that peninsula from the Lowlands in the reign of James VI. The Scandinavian type is very predominant about Loch Fyne side; a fact which proves how great the influence of the Norseman was wherever a haven was to be found.

From the various facts here adduced, it seems evident that the people of Scotland are a mixture of two races, here called Celtic, with which the Teutonic elements, Scandinavian, Frisian, and Saxon, have intermixed in various proportions. The Saxon and Frisian elements are principally confined to the south-east, although there is a sprinkling of them everywhere; which sprinkling is pretty considerable in many parts of the north-east, east, and south-west. From these various types no uniform type has ever been produced; they mix with each other in various degrees, and in such a manner that one member of a family is mostly of the one, and another mostly of the other type. In consequence of this unequal mixture of the elementary characteristics of various races, the complexion of one race frequently combines with the features of another; the eyes of one with the hair of another; the forehead of one with the lower face of another; the foot and leg of one with the chest of another. The colour of the eye, the form of the nose, the shape of the chest, the gait of the body, may be traced through several generations, and identified in third, fourth, and fifth

cousins. When features disappear in a family, they often reappear in the third and fourth generations. Blue eyes are observed in the members of a family whose parents and grandparents had none; and these are ascertained to be inherited from a great-grandmother, whose other great-grandchildren have also blue eyes inherited from her: and numerous instances illustrative of this alternation, which extends to all human characteristics, can be easily adduced. In the mixed race of the Highlands, therefore, and also in that of the Lowlands, every shade of variation is to be observed, from the pure Scandinavian to the pure Celt.

Family and Christian Names. Family names may occasionally render some aid to the anthropologist; but they are of such mutable character that, unless their origin is carefully traced, they are sure to lead to erroneous conclusions regarding the ethnology of a country. How far Highlanders have Anglicised their names, is a question of some interest to the student of the science of man, as the solution of it may help to correct the wrong conclusions of those who attach too much importance to names and language. *MacCalman*, meaning the son of Colman or Calman, is transformed into Dove; calman being Gaelic for dove or pigeon. Those of the name of *MacIain*, son of John, call themselves Johnston; believing the latter name to be the same as their own. *Mac a' Ghobhann*, son of the blacksmith, is converted into Smith. *Mac an Cheaird* (Caird) is transformed into Sinclair by a process rather peculiar, and which cannot be very well understood without reference to Gaelic. Owing to that peculiar law by which the initial letters of Celtic words pass into kindred ones, *s* and *t* are both changed into *h*; so that *Tinkler* and *Sinclair*, were they Gaelic words, would at times be pronounced *Hinkler* and *Hinclair*, two sounds not distinguishable. The word *ceard*, which originally meant a worker in metals, a smith of any kind, has in recent times been specially applied to travelling tinkers, called in Lowland Scotch tinklers. On this loose foundation the Sinclairs, who settled in Argyleshire from the north, and the Macincairds, who were a native clan, commingled names and became one; the Sinclairs calling themselves *Macancheaird* in Gaelic, and those of the name of *Macincaird* calling themselves Sinclair in English. Among several others of the native men of Craignish who signed obligations of manrent to Ronald Campbell of Barrichibyan, representative of the old family of Craignish April 8th, 1595, are, "Gilchrist Mc.incaird" and "Johne Mc.illichalum vc ean vc incaird". Many Highland names have dispensed with the Mac, and by so doing have lost the original Gaelic characteristic; while, in other instances, son has been substituted. MacDonald is sometimes changed into Donald and Donaldson, MacGilchrist into

Gilchrist, MacNichol into Nicholson, MacMichael into Carmichael, and McIntailyer into Taylor. Among those who signed the forementioned "Obligation" is "Donald McIntailyer for himself and his successioun." *Macan Leigh*, son of the physician, is Anglicised Livingstone. There is also an Irish name Anglicised Dunlevy, *Mac Dhon Sleibhe*, which may be the same as *Mac an leibhe*, also Anglicised Livingstone. The mutation of the initial consonants renders it difficult sometimes to arrive at the original form of a Gaelic name; since after *Mac*, the changed forms of *c*, *g*, *d*, *f*, *s*, *b*, *m*, can hardly be distinguished in sound from each other. Owing to this, *MacMhuirich*, son of Muireach, has been confounded with *MacCuireach*, son of *Cuireach*, Curry; *MacThorcadail*, son of Torkatil, a Norseman, becomes by the same process MacCorquodale; MacKinnon is properly *MacFinguine*, son of Fingen or Finguine. From the peculiarities already mentioned, the sounds of *f* and *g* have been lost in this name; so that it is pronounced like the word *ionmhuim*, *loved* or *beloved*. In consequence of this similarity of sound, the name MacKinnon has been supposed to mean son of love; and accordingly persons of the name have translated it *Love*. In a contract by which Archibald, seventh Earl of Argyle, gives his bond of maintenance to Lauchlan MacKinnon of Strathordile, and receives the latter's bond of manrent in return, in the year 1601, the chief signs his name in old Gaelic or Irish characters, "Lachlan misi McFionguine", Lachlan, I son of Fionguine. The name is found in the writings of the Irish annalists. "Lochene McFingen m. Cruithne, r. (?) A.D. 645." *Annals of Tighearnach*. "Lochene McFingen r. Cruithne obiit A.D. 644. *Annals of Ulster*.

Lughaidh is an ancient Gaelic name, which plays a prominent part in old Gaelic ballads and stories: *luadhadh*, a word resembling it in sound, signifies fulling cloth; so *MacLughaidh*, son of Lughaidh, was imagined to mean son of the fuller, and, as a matter of course, it has been metamorphosed into Fullerton. The number of translated names is endless. The following are examples:—*Mac an t-saoir*, son of the wright, Wright; *MacGhille dhuibh*, son of black servant, Black; *MacGhille bhain*, son of white servant, White; *MacGhille ruaidh*, son of red servant, Reid; *MacGhille ghlais*, son of grey servant, Grey; *Mac a'chleirich*, son of the clerk, Clarke; *Mac an fhleisdeir*, son of the arrow maker, Fletcher; *Mac an fhuchdair*, son of the fuller, Walker; *MacThomais*, son of Thomas, Thomson. From these instances, it will readily be perceived how erroneous a test family names and language would be in estimating the amount of Highland blood in the Lowlands of Scotland. Irish Gaelic names have undergone similar transformations.

The translation of christian names contributes to the darkening of

knowledge in a similar manner. Norse christian names, of which there are many retained by the Highlanders along with Norse blood, are completely spoilt in translation. *Tormaid* is converted into Norman; *Somhairle*, Somarled, into the Hebrew Samuel; *Eachann*, Hacon, into the Greek Hector; *Raonailt*, Ragnhild, into the Hebrew Rachel; *Iomhar*, Ivar, becomes Edward; the Gaelic *Domhnul* is confounded with the Jewish Daniel.

The names of places in the Highlands may be said to bear a fair proportion to the intermixture of blood. Norse names abound in all districts where the Norsemen settled; and, in some instances, the name is half Norse half Gaelic, as in *Caonag-airidh*, the King's height; in other instances the Gaelic and Norse names combine into one, as in *Eas Fors*, the first part of which word, *eas*, is Gaelic for waterfall, and the latter, *fors*, Norse for the same.

From the philological, historical, and physiological facts placed before the reader in this article, it will surely be sufficiently evident that the Scotch are not two different races or nations, to be designated the "Saxon" and the "Gael", but one race of a mixed character, and one nation, consisting of two kindred peoples speaking two different languages.

HECTOR MACLEAN.

VOLLGRAFF'S ANTHROPOLOGY.*

As it is not likely that the inquiring reader will find the titles of these works (excepting, perhaps, ethnology) in any dictionary, we may as well inform him that by anthropognosy the author means *general* anthropology, treating of man's nature in the *abstract* as contradistinguished from *special* anthropology. The same distinction applies to ethnognosy and ethnology, and to polignosy and polilology. The former constituting the general philosophy of jurisprudence and political science, the latter is their special or comparative philosophy. The three works, although separately published at intervals of two years, and each complete in itself, form thus a sort of anthropological trilogy.

We now proceed to give some of the main features of this remark-

* *Anthropognosie. Ethnognosie und Ethnologie. Polignosie und Polilogie.* By Dr. Karl Vollgraff, Professor of Jurisprudence and Political Science in the University of Marburg. 1851, 1853, 1855.

able work, and as far as possible we shall closely follow the author's exposition.

The starting point of the author is simply this:—"That the *outer* or physical man is the *product* of the *inner* man or the soul. But the *energy* of the soul, which varies in strength, may, as regards the human species, be reduced to four primary degrees, which the author calls primordial temperaments (*ur-temperamente*). These four primordial temperaments are respectively called *Träge*, *Regsame*, *Thätige*, and *Lebhaft*, literally translated indolent or lazy, mobile or irritable, active, and vivacious. These four primordial temperaments gave rise to the four *chief races* composing the human species; in fact, these four chief races are simply the physical reflexes, or the physical products of the four degrees of the energy of the soul.

The reason which induced our author to reject the current terms, phlegmatic, melancholic, choleric and sanguine temperaments, was that they were merely physiological denominations applying to *individual* temperaments, terms not applicable to the four degrees of psychical life.

The first or lowest degree of human vital energy, namely, that of *indolence*, is realised and represented by entirely uncultured savages. The second grade, that of *mobility* or *irritability*, is represented by half-cultured nomads. The third grade, that of *activity*, finds its representatives in the settled cultured industrial peoples; and, finally, the fourth or highest grade, the *lively* or *fiery* type, is represented by the highly-civilised "humanised-peoples" (*Humanitäts-Völker*) of the old world.

It is not meant that the peoples representing the lower grades of the scale are altogether deficient in *humanity*, but simply that the peoples of the fourth degree are pre-eminently *humanised*, because amongst them morality, philosophy, art and religion have flourished and been matured, and that amongst them industrial culture has been used as a means for a higher object. By culture in a restricted sense is meant that development of the instinct of self preservation showing itself in satisfying only physical or material wants; but there is a higher degree of culture, manifesting itself in morality, philosophy, art, religion and language; this is *civilisation*, and is the result of culture. Culture, in fact, stands to civilisation in the same relation as the understanding to reason. Without a history of culture we can have no theory of civilisation.

Each of the four chief races, *i. e.*, the representatives of the four primordial temperaments, is to be subdivided into four classes; each class into four orders; each order into four tribes or nations; and each nation again into four individual temperaments.

As regards human action we are informed that all human efforts have their root in the *natural instinct of self-preservation*, which manifests itself in four different directions. I. Physical well-being; II. Psychical and moral well-being; III. Continuance *here* by propagation; and IV. Blessed continuance hereafter. These four gradations of men represent also the ages of man *in abstracto*. Uncultured savages represent *childhood*; nomads, *boyhood*; industrial peoples, *youth*; humanised peoples, *manhood*. The four autochthonic, or chief races, spoke only four chief languages. Each of these split subsequently into four class languages; then again into four order languages; and each order language into four national languages, and these into innumerable dialects. There are also four chief religions.

We thus perceive that, according to our author, four autochthonic races of men have been created. Upon this point he observes:—

“There exists an absolute line of demarcation, psychically and physically, between the four grades of mankind, so that none of the inferior can rise to the grade above it, just as little as a man of a phlegmatic temperament can by any effort of his own change it to an irritable temperament; hence may be explained the natural antipathy of the four gradations to each other. The often asserted absolute perfectibility of all races is thus a speculative absurdity; each grade is only capable of a limited degree of development, according to its natural endowment. Thus, a perfect savage of the lowest grade cannot even be converted into a pastoral nomade, much less into an agriculturist. The theory of absolute perfectibility is also absurd, because if it were possible it would lead to perfect equality, which would at once arrest all culture and civilisation.

“All attempts to domesticate savage Australian boys have failed; despite their having for years enjoyed all the comforts of our civilised life, they escaped, whenever they had an opportunity, into their native forests. The Negro may be trained for labour, but if left to himself he relapses into his congenital indolence. The West India Islands, where the emancipation of the Negro* is now an accomplished fact, can scarcely escape the fate of St. Domingo. The liberated Negroes, forming the great majority, will eventually refuse to work for their living, they will rise as did the blacks in St. Domingo, they will take possession of the plantations, and allow them to go to ruin as did the Negroes in St. Domingo. This latter island would now be in a state of hopeless decay, were it not for the great number of Mulattoes who form the dominating population. There are probably, among the Negro population in Haiti, a number of Mandingoes, Joloffs, etc., who possess considerable aptitude for agriculture.”

Of the various results obtained by his method, the author lays some stress upon having clearly demonstrated that neither culture nor civilisation would exist had not men been created with disparate

* This, it must be remembered, was written nearly twenty years ago.

mental and physical capacities ; in fact the author, as he tells us, commenced his researches with the following question : Why do men live in political and civil societies ? The ancient philosophers answered, because man is a social being. But the question still remains : Why are men social beings ? the answer to this is, because they require the help of each other. But even this reply is insufficient, for it may be further asked ; Why are they dependant on each other's help ? to this there can be no other reply than this : because spiritually and bodily they are differently endowed.

Were all men equal in mental and physical energy, they would be equally poor or rich ; none would be willing or able to serve another, for every man would be everything to himself ; men would thus have remained savages without any culture or civilisation. This natural disparity is not merely the *cause* but the *indispensable condition* of all social intercourse and of labour.

Our author lays claim to originality, both in conception and execution. We confess that, apart from the quadripartite formalism which pervades the whole work, and which, as the author admits, is partly derived from Oken's *Physio-philosophy*, we find little to justify these claims. His very starting-point, that the soul is the architect of the body, is a mere revival of the creative idea of Plato, the *impetum faciens* of Hippocrates, the *entelechia* of Aristotle, the *archæus* of Van Helmont, the *anima plastica* of Stahl, and *nisus formativus* of Blumenbach. The assumption is, in short, an anachronism, as it ignores all recent researches concerning the so-called vital force. Nor can we find any originality in the fundamental idea "that the instinct of self-preservation is the root of all human efforts." Dr. Vollgraff must have well known that the theory of self-preservation lies at the basis of Herbart's *Psychology*, and that his "selbsterhaltungstrieb" differs very little from the self-love of Helvetius.

"Self-interest or self-love," says Helvetius, "is the lever of all our mental activities. Even that activity which is purely intellectual, our instinct towards the acquisition of knowledge, our form of ideas rests upon this ; a system of ethics which does not involve the self-interest of men, or which makes war against it, must necessarily remain barren."

It appears therefore, to us, that so far from being strictly original the whole work betrays a want of self-reliance on the part of the author ; for at every step he appeals to a number of authorities in support of his position. The work, in fact, groans under the weight of a mass of quotations, culled from not less than one thousand authors.

But although we cannot credit the author with the merit of having discovered any primordial principles, we are in justice bound to

admit that in the development of his position he has shown rare ingenuity. His learning in history and philosophy is multifarious. With genuine German industry he has collected a large amount of information scattered through an immense number of books, and we can readily believe, as the author informs us, that the work is the result of fifteen years labour. Despite the hard words which abound in the book, the style is throughout perspicuous if not graceful.

It is no disparagement to our author that he has not succeeded in his task of creating "a synthetic science of political philosophy founded upon a scientific ethnological classification." The time has scarcely arrived for uniting into one harmonious whole all the diversified subjects relating to the science of man. As an anthropology the work is simply a failure, the results obtained being not at all in proportion with the great object aimed at. In physiology, especially, the author is not up to the mark. Nevertheless, despite all that can be urged against the value of the work as a text book of anthropology, we have no hesitation in saying that, owing to its encyclopædial character, the work is fully entitled to a prominent place in the library of every anthropologist.

Dr. Vollgraff seems also to labour under an incurable Anglophobia. Some of his sketches of the English character are highly amusing from their very absurdity. There are, however, some home thrusts which cannot easily be parried. Thus he tells us (p. 760):—

"The present aristocracy of England is mostly an ennobled money aristocracy, whose ancestors had by industry and trade acquired wealth and landed property, and then assumed the names of the old Norman nobility, so that but few noble families can trace their pedigree further back than the sixteenth century. The pride of this new aristocracy and the contempt with which they look down upon the industrial classes is supremely ridiculous. Bulwer has well said that in England to be poor is to possess no virtue. Money is in England and America the loadstone; and hence it is that theory of the acquisition of wealth has been so fully developed by Adam Smith.

"None but an Englishman could have so deeply penetrated into the mystery of wealth. A mere philosophical treatise on this subject would have met with no success. Whatever is not attended with practical advantages is not esteemed in England; hence the contempt for speculative philosophy and for the scholastic profession generally."

In the introduction to *Ethnogenosy* the author recommends scientific expeditions for the advancement of anthropology, in the following terms:—

"England alone is able to equip and protect such expeditions. A scientifically instructed and methodically conducted ethnological expedition would be more advantageous to its trade and industry than all private undertakings of this kind in which Englishmen have

already distinguished themselves as pioneers in geography and ethnography. All expeditions of this kind are sadly in want of scientific instructions and the supervision of a central institution. The millions which England spends on Bibles and missions in order to raise peoples of inferior grades to a higher civilisation, would be more effective if they were applied to expeditions for inquiring into the wants of the respective peoples as they actually are."

This suggestion reflects the greatest credit on Dr. Vollgraff, considering that it was thrown out in 1853, before anthropology was much cultivated in this country.

In conclusion, it may be stated that Dr. Vollgraff is the author of numerous important works, all more or less crotchety. His chief work, *The System of Practical Politics*, is full of speculations. In one of his later publications, *Die Täuschungen des Repräsentativsystems* (The illusions of the representative system), he endeavours to show that the representative system is an "ungerman" institution, not at all adapted to the German nations. This bold assertion greatly excited the ire of the Marburg radical students, who straightway settled the question by making a bonfire with their professor's books; forgetting that they were thus to some extent illustrating the truth of their professor's teachings.

We neither think better nor worse of the author because of this literary *auto-da-fé*. Many better books have experienced the same fate, but their respective authors were generally in advance of their age, and this also seems to be the case of Dr. Vollgraff.

DR. LATHAM'S WORKS.*

THE original documents whence we derive our anthropological knowledge of the races of man are scattered through an enormous mass of books, of which they seldom form more than a small part distributed here and there amidst a wilderness of other matter. It is so heavy a task to pick out from histories, books of travel, missionary records, etc., details as to the character of races, that anthropologists who collect and concentrate such knowledge, do most valuable service to their science. In England, Prichard's *Natural History of Man*, and *Physical History of Mankind*, Latham's *Varieties of Man*, Pickering's

* *Descriptive Ethnology*. By R. G. Latham, M.A., M.D., F.R.S. 2 vols. London: Van Voorst. 1859. *Elements of Comparative Philology*. By R. G. Latham, M.A., M.D., F.R.S. London: Walton and Maberly. 1862.

Races; in Germany, Klemm's *Culturgeschichte*, and Waitz's *Anthropology*, now in process of translation and publication by the Anthropological Society, are among the principal books of reference. The newer anthropological work of Dr. Latham's now before us, his *Descriptive Ethnology*, claims a place with these among the books of value to the working student. It is not a new book, but such books in the present state of our study are not superseded, like novels, by newer comers. It will probably be useful to describe shortly its plan and character, and to make particular mention of a few salient points, which will interest readers who would be more apt to refer to it under particular heads, than to go through it *seriatim*.

Dr. Latham puts together a mass of information about a great variety of races in Asia, Africa, and Europe, but with little plan beyond geographical enumeration, and with little attempt to do more than collect and digest facts. He uses physiology to some extent in making out the character of tribes, but depends especially upon language. From the fallacy, however, of taking language as a positive criterion of race, few writers are more free, and he puts this matter in several passages, which are wholesome reading for those who would be likely to fall into the very prevalent heresy of Bunsen and Prichard. "The blood lineage, pedigree, genealogy, descent, or affinity, is the primary ethnological fact. The language is the evidence in favour of it. This may be conclusive, or the contrary. It is rarely conclusive when it stands alone." (Vol. i, p. 357.) Speaking of the question of German and Slavonic race and nationality, he makes the pertinent remark, that half Germany, if it did but know it, is "Slavonia in disguise." Much to the same purpose are his remarks on the Keltic race, which, as he points out, may increase in America, both in numbers and strength of blood, by the marriage of Irish or part Irish settlers with new immigrants of the same race, while, nevertheless, this Irish blood will carry no Irish language with it at all.

"In this way the Kelt family, as tested by its genealogy, may increase; whilst, as tested by its language, it may fall off. Whatever may be its fate in this respect, it is clear that its outward and visible characters have not only a decided tendency to change, but that, these being lost, little is left but an abstraction. Hence the Keltic family, like the Negrian, must be looked upon as the family of a diminishing area." (Vol. ii, p. 505.)

As to Dr. Latham's treatment of language in philological evidence, we cannot, however, speak with more than a very partial approval. He is too easily content with comparing very short vocabularies of languages, twenty to forty words for instance, and deciding by their apparent likeness or unlikeness whether or not such languages are

allied. Now this method, it is true, works in many instances very tolerably—better than it deserves, we had almost said. By keeping to one series of words for comparison he gets at least a fair average, and avoids the dangers of the old practice of comparing any similar words picked out through the whole range of a language, which, as it is possible to find a few words nearly alike in almost any two languages in the world, led of course to absurdly false results. Where, for instance, he compares a short vocabulary of the languages of a tribe North of the Affghan frontier, the Aimak, with a Mongol language, the Kalka, and gives the names for 1, 2, 3, 4, 5, in the one, *Nikka, koyar, ghorban, dorban, tabun*; and in the other, *nege, khoyin, gurba, diirba, tabu*, (vol. i. p. 330), there is hardly any possible room for doubting the real connexion of the two languages. Or again, where he compares the Singhalese with the Sanskrit, and the Hindustan with the Marathi, by means of his specimen vocabulary, the inference would hardly be resisted by any one that the languages in question were closely connected dialects. But in such cases, why could he not have clinched the argument by the proper and necessary appeal to grammatical similarity? Yet it is only in such cases as these that this method really answers at all. Let us take the compared vocabulary of the Jurui of the Malayan peninsula, where, out of twenty words, five, *med*, 'eye,' *litig*, 'tongue,' *tong*, 'hand,' *mitkakok*, 'sun,' *bulan*, 'moon,' are like Malay, the rest not (vol. ii, p. 486); or the sixteen word vocabulary of Albanian and Romaic (vol. ii, p. 25), where there is no similarity at all. Such a comparison proves nothing to speak of, either for or against, for five words out of twenty are no proof of radical connexion, and, on the other hand, many languages have this radical connexion which might fail to show five similar words in the twenty. So confident is our author, however, in this method that he actually takes the trouble to print an elaborate list of the percentage of similar words as counted out of Siamese, Anamese, and a number of other vocabularies. He even speaks of the Singhalese as being "far more Sanskrit than either the Tamul or the Malayan," a remark which would make the very hair of an ordinary philologist stand on end with horror, at the idea of the relations of a language to the family it does belong to, being compared as mere matter of more or less with its relations to a family it does not belong to at all.

Among the physiological data which Dr. Latham sets down in his account of one race after another, is a series of details of the transmission of racial peculiarity which has so much anthropological interest, that we give an abridgement of the particulars (Vol. i, p. 201), which Dr. Latham quotes from Mr. Crawfurd as to the first generation, and from Mr. Yule as to the second and third. The

grandfather, Shive-maong, was a native of Laos; the chief of the country had given him, when five years old, to the King of Ava as a curiosity. When grown up he was of ordinary stature (5 ft. 3½ in), slender, rather delicate, and fairer in complexion than is usual among Burmese. His forehead, cheeks, eyelids, and nose were covered with lank, silky, silver-grey hair, from four to 8 inches long. This remarkable covering extended over the whole body, except the hands and feet, being most plentiful over the spine and shoulders, where the hair was 5 inches long, but more scanty elsewhere. It was permanent. Although but 30 years of age, Shive-maong looked 60, this being due to the peculiarity of his teeth. He had in the lower jaw but five teeth, namely, the four incisors, and the left canine; and in the upper, but four, the two outer ones of which partook of the canine form. The molars were of course totally wanting. What should have been gum, was a hard, fleshy ridge; and, judging from appearances, there was no alveolar process. The few teeth he had were sound, but rather small; and he had never lost any from disease. He stated that he did not shed his infantine teeth till he was 20 years of age, the time of his attaining his full physical development, when they were succeeded, in the usual manner, by the present set. He also expressly asserted that he never had any molars, and that he experienced no inconvenience from the want of them. This hairy man had good features, and was intelligent in mind. At birth, his ears alone were covered with flaxen hair 2 inches long, that on the rest of his body growing afterwards. At 22, the king made him a present of a wife, by whom he had four daughters. The first and second died young, but neither in them nor in the third was there any abnormal characteristic. But the youngest was born with hair on the ears which soon increased all over the body.

Years afterwards, Mr. Yule carried on the description. This daughter, Maphons, had now fully developed her hairy peculiarities, no part of the face but the extreme upper lip being visible for long, hanging, silky hair. In spite of this strange skye-terrier appearance, she was a pleasant and intelligent young woman. Her husband and two boys came with her, the elder an ordinary child, the younger taking the family characteristics, and promising to represent this curious race of "hairy orbits" to the third generation. His mother's dental peculiarity corresponded with her father's in the absence of canines and molars, but she contrived to make the hard ridge of the back part of the gums serve to chew pawn with, like her neighbours.

To pass to questions of the development and degeneration of civilisation, several interesting facts and arguments on these objects are brought forward by Dr. Latham. He looks upon certain of the lower races as outcasts, physically and morally degenerate, and compares,

for instance, the Bushmen of South Africa with those Tungus of Siberia whom loss of domestic animals has thrown down at once in prosperity, and in the scale of civilisation.

“Let a Tungus of any kind live in a steppe or a wood and his habits are modified. Let a rich man become poor, and he goes on foot instead of driving or riding. Erman gives a saddening and sickening account of a poor Tungus and his daughter, in a lone hut, desolate, and isolate. They had simply lost their cattle, and hunted, apart from their fellows, in solitude. A Bushman who has lost his herds is a Tungus without his dogs, reindeer, or horses, and the history of an afflicted family in the South of Africa is, *mutatis mutandis*, the history of an afflicted family in the North of Asia.” (Vol. i, p. 272.)

The civilisation of that most remarkable and peculiar country, China, Dr. Latham maintains with considerable force, cannot justly claim the immense antiquity which has, indeed, been recognised by later ethnographers as, at any rate, monstrously exaggerated, and he moreover suggests the denial of its originality, ascribing it in great measure to contact with post-Christian civilisation, particularly across Asia, which has left, in the often noticed resemblances between Buddhist and Roman Catholic ceremonies, clear traces of Nestorian influence in the early days of Christianity. Without going fully into the long discussion necessary, we think that Dr. Latham's view has in it a partial truth, and that the entire independence of Chinese civilisation has probably been put too strongly; but that, on the one hand, its very peculiar character, its possession of arts so foreign to the rest of the world, that of making cast-iron kettles, for instance, which only date from the last century in England, and on the other hand the absence in China of arts such as alphabetic writing, which they would have adopted from abroad had they been a people prone to adopt, tend in two ways to make Chinese civilisation in great measure a system *per se*, affected to a considerable extent (as in Buddhism and its belongings) by foreign influences, but nevertheless to a large extent peculiar and original.

As to the general question of growth and decrease in human civilisation, the following passage, with which we conclude our remarks on and samples of Dr. Latham's Descriptive Ethnology, is not only a good specimen of his peculiar turn of thought and style, but conveys a piece of practical advice, which, though it does not do justice to much good work which has really been done, and grossly exaggerates the deficiency of our knowledge, is nevertheless, we are sorry to admit, a good deal to the purpose.

“Now, although all inquirers admit that creeds, languages, and social conditions, present the phenomena of growth, the opinions as

to the rate of such growths are varied—and none are of much value. This is because the particular induction required for the formation of anything better than a mere impression has yet to be undertaken—till when one man's guess is as good as another's. The age of a tree may be reckoned from its concentric rings, but the age of a language, a doctrine, or a polity, has neither bark like wood, nor teeth like a horse, nor a register like a child." (Vol. ii, p. 322.)

To turn now to Dr. Latham's *Elements of Comparative Philology*, we may describe this book shortly and effectually, by saying that it is what the author himself intimates, in the first page of his preface, that is, an expansion and continuation of Adelung's *Mithridates*. This accounts at once for its merits and its faults. It contains information about a great variety of little known languages, but the method by which they are handled is now behind the times. The best way in which we can treat the work is to set before our readers a few points which have most struck us among its contents.

Among Dr. Latham's remarks on the general principles of philology, we may notice him taking such phrases as *catch'em, je l'aime*, and pointing out that it is only by what he fairly calls 'printer's philology,' that these phrases are cut in pieces by the apostrophe, whereas, if left to themselves in spoken language they would have become examples of what we call incorporating or polysynthetic words when we meet with them in the languages of American savages (p. 520). On the next page he refers to the view that similar grammatical phenomena turn up again and again in different parts of the world, and under the most varied circumstances.

"The doctrine, then, that the differences in grammatical structure are differences of degree rather than of kind, and that there is nothing in one language, which either as a fragment or a rudiment, is not to be found in another, is contravened by nothing from America."

Dr. Latham does not believe in the extreme antiquity of the Chinese language, as represented by its oldest known books. He thinks the dialect would have changed more in so long a lapse of time as the thousands of years claimed for the antiquity of those early documents.

"The difference between the Mandarin of to-day, and the oldest classical Chinese is (roughly speaking) the difference of two centuries, rather than two millenniums—assuming, of course, anything like an ordinary rate of change." (P. 65.)

This is of course mere guess-work, but still it is worth consideration. From a similar point of view, Dr. Latham discusses the language of the Hebrew scriptures, and puts very pertinently the three alternatives by which he would seek to account for the fact of the almost absolute philological identity of the Hebrew language of those non-Chaldee books which are held to be the earliest of the canon, and those to which a date later by hundreds of years is assigned. They

may, he says, have been brought up to the modern standard of language, when from time to time they were transcribed, as has been done with old English compositions. Or the newer writings may have been written upon the model of the old, just as Ciceronian Latin is written by late Italians. Or the language may have held on for ages with exceptionally little alteration, as has been the case with the Icelandic. This question is of a great deal of importance in Biblical criticism; for, unless one of these alternatives has really taken effect, the similarity of the language of the various Hebrew books of the canon must bring their times of composition much closer together than is commonly supposed.

Among the mass of compared vocabularies of which Dr. Latham's work is full, we may select one of especial interest to the student of human races, that, namely, which shows the close connexion between the languages of the Guanches of the Canary Islands (Lancerotta and Fuerteventura) and the Shelluh of the African continent (P. 541).

<i>English.</i>	<i>Canary.</i>	<i>Shelluh.</i>
Barley	temasin	tumzeen
Sticks	tezzezes	tezzerat
Palm-tree	taginaste	taginast
Petticoat	tahuyan	tahuyat
Water	ahemon	amen
Priest	faycag	faquair
God	acoran	nikoor
Temple	almogaren	talmogaren
House	tamoyanteen	tigameen
Hog	tawaeen	tamouren
Green fig	archormase	akermuse
Sky	tigot	tigot
Mountain	thener	athraar
Valley	adeyhaman	douwaman

To those who deny the validity of the existing evidence for what is called the Aryan theory, which deduces most European languages in quality from some lost tongue, most nearly represented by the existing Sanskrit, and in space from some region of Asia, Dr. Latham offers an argument from what he considers the insufficiency of the evidence. He thinks (p. 611) that there is indeed more presumption that Sanskrit came from Europe, and (p. 651) that Greek is indigenous in Southern Europe. He honestly admits, however, that he has not worked out the evidence on which the Sanskritists base their views. If any student who has really mastered this evidence, and can prove that he has done so, will then undertake to plead the cause of the disbelievers in the Aryan theory, he will certainly make a sensation in the philological world. Merely to say, however, "I am sorry that I have not been able to spend the time and labour wanted to understand the evidence, but my opinion is, that the Sanskritists are all wrong," is a fair way of stating an author's view, but is hardly likely to produce much effect on the external world.

VON BAER ON ANTHROPOLOGICAL EXPLORATIONS.*

THERE is no scientific expedition, which could be undertaken within the Russian empire, which would be received with greater favour by Europe at large, and would have as many claims on the gratitude of our own country, than an expedition having for its main object the study and, if possible, the geographical determination of the traces of the earliest immigrations of peoples, and their different degrees of civilisation, and how far these have still been preserved on the Russian soil. It is not intended to search for fresh written documents, either for comparison or for the enrichment of authenticated historical records. For this object, much has already been effected under the reign of the late Emperor Nicholas ; and researches in this direction are still being continued. The prehistoric times of the human species, for which there exist no other documents than the relics of man himself preserved in the soil, his implements and industrial products, will form the subjects for inquiry. Many highly instructive discoveries have, as regards primitive times, recently been made in various parts of Western Europe. Thus, to mention only a few of the more important results obtained, there have been found in Switzerland, and recently also in other countries, vestiges of human habitations in the mud of lakes, containing relics of three different kinds of cereals, of domestic animals (cattle, swine, sheep, dogs), of many species of wild animals (game), also webs, and implements made of stone or bones. In Western Switzerland, there have been found in the lakes various bronze objects, which are not met with in the eastern cantons, and thus indicate a more recent state of civilisation. In Denmark are found large heaps of oyster and other shells, which lie scattered on the coast, and which for a long time were considered as having been thrown ashore by the sea. These heaps are found to contain stone implements, but none made of metal ; bones of wild animals artificially split open by the hand of man, but no bones of domestic animals excepting those of the dog. In short, there were found in these shell-mounds, some being of considerable dimensions, the refuse of meals ; hence they were called kitchen-refuse. We here perceive the traces of an early uncivilised condition of man, in which he knew not the use of metals,

* " Proposal for the Equipment of Anthropological Expeditions into the Interior of the Russian Empire", by K. E. von Baer. Translated from the *Bulletin de l'Académie Impériale des Sciences de St. Pétersburg*, tom. vii, 1865.

possessed no domestic animals, excepting perhaps the dog, and supported himself by the chase or by fishing. Neither textures nor the remains of habitations belonging to this primitive period have as yet been found. In some districts of France, and lately also in England, there have been found, in beds not belonging to recent formations—namely, in the diluvium of geologists—quartz and flint implements, apparently rudely shaped by the hand of man. No remains of human bones were found, nor any finished art objects.* The assumption is, that these flints have been worked by the hand of man, as such forms are not produced by nature, but that the period of their fabrication is so remote, that even the hardest parts of the human body have been utterly destroyed by time. There were further found in several regions, in caves subsequently closed by geological processes, so that they were inaccessible to atmospheric air, human bones associated with those of antediluvian animals, such as the mammoth and similar gigantic animals, previously thought to have been extinct before the appearance of man.

Thus, in short, the history of the human species has been extended. It is now acknowledged that, even in such parts of Europe now considered the most civilised, man was for a long period in as low a state of culture as were the inhabitants of Australia, New Guinea, the interior of North and South America, when first discovered by Europeans. Nevertheless, such sparse discoveries, separated in time and space, are as yet insufficient to form a basis for a general history of European humanity before the introduction of the art of writing. It is above all things desirable to ascertain what contributions to the history of prehistoric times Russia may afford. The celebrated antiquary Worsaae, who has taken so large a share in the researches concerning the prehistoric times of Denmark, had already some years ago determined to visit Russia for this express purpose, but was prevented by accepting an honourable appointment in his own country.

In order better to indicate what may be expected from the Russian empire, we must be permitted to extract a few passages from the advertisement of the Academy, prefatory to the Russian translation of Worsaae's work on northern antiquities.

“Accidental discoveries have only yielded individual, not connected indications. A more connected insight into the primitive condition of the European peoples, was only obtained when many finds from prehistoric times, in different places, were compared, and when not merely the objects were preserved, but all conditions under which they were found were closely examined and described. By doing so,

* (Note in original.) This applies only to 1862; for in 1863 were found in these beds some teeth, and the half of a human lower jaw.

we were enabled to distinguish the different kinds of sepulchres, and to recognise that they must have belonged to different peoples, who have succeeded each other ; for the form of the crania varies much. Then only could the following questions be raised : By what means have the inhabitants of Europe, and especially of the north, supported themselves ? At what periods have they lived solely on the products of nature, and when did they carry on agriculture and cattle-breeding ? Which peoples introduced the art of fusing metals, and who brought with them the art of working iron ? It is easily conceivable, that replies to these questions can only be gradually forthcoming, as we can only question dumb witnesses, and that these can only give fragmentary answers, inasmuch as every thing not of the most solid material has been destroyed by time.

"In Denmark and Sweden, and also in Mecklenburg, such researches have zealously been carried on. In Copenhagen a large museum of northern antiquities has been formed, under the able direction of Thomsen. In traversing the numerous apartments, where everything is preserved relating to the earliest culture, down to the art-products of the middle ages, we see, as it were, passing before us the history of these parts. Both in Denmark and in Sweden, the conviction has gained ground that the prehistoric time of these countries must be divided into three chief periods—the stone-, the bronze-, and the iron-age. In the first period were employed only implements of stone and bones, or wood fastened with bast or leather thongs. In the second period appear the more easily workable metals, specially gold, which was, however, always rare and costly, and copper alloyed with other metals—with tin in Denmark, and in other parts with zinc ; this alloy is called bronze. In the third period appears iron, converted, on account of its hardness, into weapons, knives, axes, and other objects, and which supplanted bronze. These periods, though assumed more than twenty-five years ago, are still recognised, notwithstanding that it is now shewn that these ages are not so sharply demarcated as was formerly believed ; inasmuch as stone weapons were not immediately abandoned, on account of the rarity and costliness of iron implements. On the other hand, it has also been shewn that these three chief periods admit of subdivisions. Thus polished stone implements come much later in use than such as are rudely hewn, and made in the earliest period of flint."

"Whence the arts to work the various metals immigrated, and whence came the various cereals and domestic animals, is as yet undecided. The cautious Danes and Swedes are not inclined to ascribe this progress to the primitive inhabitants of their country, but to later immigrations. That this later civilisation proceeded from Asia, is rendered probable by linguistic researches, and is confirmed by the finds in sepulchres. But whence came the immigrations, can only be determined after the relics of the past have in other countries been as carefully examined as in the Scandinavian North. They have, however, now commenced to pursue such researches, especially in Great Britain, Switzerland, France, Italy, and Germany. Russia, where since Karamsin's time the historical records of our country have been

studied with so much zeal, has as yet taken little interest in the earliest period, which cannot be reached by written documents. Although many *kurgans* (graves) have been opened in the Russian empire, and many reports published on them, they have not been viewed from a common stand-point; nor do we possess a general collection of the discovered prehistoric objects. Such articles, moreover, unless they consist of precious metals, are frequently not considered worthy of being preserved, nor placed in a public collection, nor designated by names. And yet foreigners, who earnestly endeavour to throw some light on the earliest history of the human species, are most anxious to obtain information from Russia, because there must be found many roads by which the earliest civilisation had been introduced. It is clear that all immigrations from Asia to Europe, which did not proceed by way of the Grecian Archipelago or the Hellespont and the Dardanelles, which could only have been effected by boats, must have passed through most of the countries now forming the Russian empire. Thus, to mention only one instance, attention has long since been drawn to the circumstance that in the old so-called Tschudes-shafts and Tschudes-graves, metal objects belonging to an early period have been found. The connection of these facts with the introduction of metals into Western Europe, as well as the period to which the Tschudi tombs belong, can only be determined by comparing a series of discoveries of this kind. The following instance will show how instructive must be, for Western Europe, observations gathered in the extensive area of the Russian empire. In Celtic graves, there are frequently found bronze implements having the form of a little spade, about the use of which conflicting opinions were given. These questionable implements, called 'celts', occur also in the Tschudes-graves; but there they are not of cast bronze, but of copper. We now learn, from our zealous traveller Mr. Radde, that in the far west of Siberia an exactly similar implement is at present in use to dig up lily-bulbs."

"It is, therefore, a debt of honour which Russia, now belonging to the states where science is cultivated, is bound to pay, by a profound study of its antiquities. The interest in the past of Russia, though no longer merely national, but embracing humanity at large, will become more general when the results of the enterprises of other peoples in the same field will be better known, by which the classification and denomination of the objects found in our country will be facilitated."

Three years will probably suffice to enable ramified expeditions to collect valuable materials for forming an opinion on the early immigrations of peoples, and their degree of culture.

The members of such expeditions should be perfectly acquainted with the results obtained by the researches of Western Europe in relation to the prehistoric records of humanity. They should also carefully study all the reports relating to the opening of kurgans in Russia, and thus obtain hints for further researches; they should personally examine these kurgans, of which it is only known that they

are very ancient, and belong to different periods. They should also open such graves as greatly differ from each other. During the first journey, which we shall look upon as merely one of preliminary inspection, inquiries should be instituted as regards recent excavations, and existing collections which should be examined. At the same time, it should be inquired into whether on the shores of the lakes traces are found of human habitations, or other relics of human industry. Such explorations must be pushed to the extreme boundary of the so-called Tschudes-graves.

When this preliminary exploration shall have furnished us with some indications as to the proper directions and other points, then only will it be advisable to sketch out special plans for sending expeditions; one, for instance, to the flat country south of the Ural; a second to the depressions between these mountains near Jekatherinburg; and perhaps a third across the Crimea to Taman and the Ponto-Caspian steppes; for these three roads will probably prove to have been the three chief gates of immigration. In all directions must kurgans be opened, as well as flat graves, which are known to the people. The finds should be well preserved, and the condition of the graves should be minutely described and properly delineated. The subsequent comparison of these finds cannot fail to lead to certain results.

It is essentially requisite that such researches should be made soon, and according to a preconcerted plan; for in various parts of the country there are constantly kurgans and other graves opened, but without the requisite circumspection, and the publication of details, which are absolutely necessary for arriving at any satisfactory result.

These expeditions will also have opportunities for ethnographical observations relating to the present period, and may thus either rectify or furnish supplements to the recent works of Pauly.

EXPLORATIONS IN SOUTH WEST AFRICA.*

THE author, Mr. Baines, travelled from Walvisch Bay, on the west coast of Africa, to the Victoria falls of the Zambesi River, in company with Mr. James Chapman, a former friend, who had spent many years in travelling, and was well acquainted with the country, and the language of the natives. Mr. Baines had also travelled for many years in Africa and North Australia, and in 1858 was appointed artist to Dr. Livingstone's expedition to the Zambesi, and the Portuguese territories on the east coast. Leaving this in 1859, he returned to Cape Town, and on recovering from a severe illness, sailed for Walvisch Bay, which he reached on the 29th of March, 1861, and proceeded up the country to join his fellow traveller, (who had started some months previously) in an attempt to cross the continent from west to east; their intention being to travel to the Zambesi to some point below the Victoria Falls, with the land equipage belonging to Mr. Chapman, and then to descend the river in boats constructed of copper by Mr. Baines, capable of being used either singly, or when the breadth of the stream admitted, side by side, with a roomy deck between them, like the South Sea double canoes.

Fever and famine, and the death of many of the native attendants, compelled them to abandon the latter portion of their intended journey, and to return at a time when they had hoped their difficulties were almost overcome, and that in a few weeks they could have commenced their voyage down the Zambesi.

The journal, written under all the disadvantages incidental to such an expedition, where the travellers had to work at every laborious occupation that came to hand, passed through the press, while the author was still absent in Africa; and it is chiefly from the preface written by his aged and widowed mother, on whom devolved nearly all the labour of the revision, that we gather the foregoing details.

The dreary beach at Walvisch Bay overflowed at spring tides, so that no house can be erected save on an embankment previously raised, surrounded by shifting sand hills, and, excepting the scanty supply afforded by the Sand Fountain, four miles distant, utterly destitute of fresh water; is frequented only by a few Namaqua Hottentots, who, on the arrival of a vessel, come down to earn a little tobacco or other articles, by carrying up the cargo to the store house,

* *Explorations in South-West Africa.* Longman and Co., 1866. *The Victoria Falls of the Zambesi.* Day and Son, 1866.

or to assist the fishermen in cleaning and preserving the produce of their labour, or, perhaps, to lay in a store of provisions for themselves; the richer mounted on their oxen—by hunting buffaloes in the reeds of the Swakop river, fifteen miles to the northward; and the poorer by spearing with a sharpened stick or gemsboks horn, the sting rays and sand sharks in the shallow waters of the lagoon.

The native costume of these people is as picturesque as it is scanty, but the garments of softened leather, and ornaments of brightly coloured beads, harmonise with their yellowish brown skins, and it seems a question whether their appearances much improve by the adoption of civilised clothing, particularly when, as is often the case, the latter is merely some cast off rag, pertinaciously worn till its condition is perfectly indescribable.

As the Narip Desert is passed, and the village of Otjimbengue reached, we come more frequently in contact with the Damaras, or more properly, Herero, a pastoral race, who, driven from their home in the interior, (perhaps on the Zambesi below the falls) by some of the continual tribal wars, emigrated boldly, defending their cattle as they passed to the west coast, in latitude between 15° and 20° ; then turning south, occupied the country down to the Swakop river, driving out the Topnaars or aboriginal Namaquas, and the Haukoin, a black race with language much resembling the Hottentot, and now commonly, though improperly called Berg Damaras. Farther and farther still they were spreading southward till the Topnaar Namaquas* in despair entreated the assistance of Jonker Africaner and his tribe, who with their horses and fire-arms, not only checked the torrent of invasion, but subsequently plundered many villages of the Damaras, under circumstances of the most revolting barbarity.

The men of the Damara tribe are tall and well formed, though perhaps not equal to the Kaffirs; their native dress is picturesque, the chief peculiarity being a waist belt, consisting of a coil of many fathoms of small leathern cord, in which are stuck the keeries or knobbed clubs, or other weapons; their woolly hair matted into threads with grease and red clay, is parted in the centre, and hangs profusely on either side, almost imparting a feminine appearance to the otherwise manly features; a cockle shell is worn upon the forehead; the weapons are broad thin bladed assegais, the club previously mentioned, and occasionally the bow and arrow, the former of which is converted into a musical instrument by taking the string between their teeth, and tinkling it with a small twig or straw.

The three eared bonnet worn by the women, and their belt or bodice laboriously formed of small disks of ostrich egg shells strung like buttons upon leather thongs, are also most interesting, as well as

the peculiar sandal, the sole of which, instead of being cut as in other tribes to the shape of the foot, projects in points two inches or more beyond the toe and heel.

Their huts are of the rudest description, and little or no care is taken to render them water-proof, the inhabitants preferring rather to risk the drenching of the short rainy season, than to take this apparently superfluous trouble.

Their food is generally the roots gathered from the veldt, or the sweet gum of the mimosa, with the milk of their cattle, and rarely the flesh of such as may be slaughtered on great occasions; but those who were employed by the mining company were allowed five pounds of meat daily, and others living near the mission stations have begun to cultivate a little corn in the broad sandy bed of the Swakop river.

The Africaner and other Namaqua tribes living near have for the most part adopted the clothing and weapons of civilised life and not only coarse cotton shirts, duffel or moleskin jackets and trousers, wide-awake hats and common muskets are sought for, but traders are asked for superior clothing, and rifles of the best possible description.

The chief wealth of these people being also in their cattle, the danger of infection from lung sickness was a serious consideration, and they allowed no suspected oxen whatever to approach the drinking places, and even insisted on all the gear belonging to the wagons being well washed, tarred, and rolled upon the sand to free it from taint. With these necessary regulations of course the travellers cheerfully complied, great as was the inconvenience entailed by them—though not without an occasional murmur, at the semi-civilised legislators who hesitate not to break the laws when convenient to themselves, and cast the blame of their own indiscretions upon their visitors.

The bushmen of the desert seem to have been rather superior to the specimens of the same race found on the borders of the Cape Colony, they were frequently from five to five and a half feet in height, and in exceptional cases even taller; the skin was of a rich light brown, the limbs well formed, and but for the enormous adipose development behind, and the corresponding protuberance in front, their figure was generally good. Their clothing consisted only of a three-cornered piece of skin, two angles of which were tucked in front into the belt or small thong, tied round the loins, while the third hitched up behind and frequently left to retain its place by muscular action alone, occupied so exactly the position of a tail, that it may perhaps have suggested the stories we have heard of men with such appendages in Central Africa

Of the condition of these people after a feast on the carcase of a

rhinoceros or elephant, shot by Mr. Chapman, some idea may be formed from the statement that the sentry they placed over their dried meat was unable to bend his body in sitting down, while the dogs themselves could not turn a corner, and the Damara servants were unable to do anything till they had slept off the effects of their last meal, and rose only to attack a fresh one.

It is pleasing to find that these children of the wilderness, living as they do in a scantily watered country where neither Hottentot nor Bechuana dare permanently settle, maintain an independent and manly bearing that contrasted favourably with the importunate effrontery of the Hottentots and the apathetic indolence of the Damaras, and it is not less gratifying to infer from the ready confidence with which, on all occasions, they came forward to meet the expedition, that the majority of English travellers in South Africa are not the heartless oppressors of the innocent native, that it is too much the fashion to represent them. A frank, honest, and kindly manner is essential in dealing with them; but kindness, unless backed up by sufficient firmness and determination, would soon be taken by the shrewd savage as a proof of weakness, and, instead of winning his esteem, would only be regarded with contempt.

Among the Bataoana, (or little lions, a sub-tribe of the Bechuana) at the lake Ngami, the qualifications of the explorers were severely tested by the cunning and hard bargaining of the peddling chief Leshulātēbē, who seemed determined not only to become the possessor by gift or purchase at the lowest possible rate of everything the wagons contained, but, beside this, not to allow the travellers to pass so long as they retained an article he coveted. The record of Mr. Chapman's dealings with him may be recommended to the perusal of those who think our countrymen cheat the natives of the ivory in return for the merest trifles, when the fact is, that to the native, ivory has *no value whatever*, until he finds that it can be sold to a white man. The first trader of course buys it cheaply; as, for his enterprise, he deserves to do. But it soon rises to its market value, and if a musket worth ten shillings in Birmingham, be given for a tusk worth fifteen pounds in England, it must be remembered that freight, customs duty, the equipment of an expedition to the interior of Africa have to be paid, the risk of loss in cattle or otherwise to be incurred, a year, or perhaps two or three, to be spent in travelling, and expensive presents to be made to the chiefs and principal men, while the quantity of goods that can be carried in each wagon is so limited, that under the most favourable circumstances, the profit made by the trader cannot be considered an extravagant reward for his hazardous and toilsome journey.

There is little fear of such people as those of Leshūlátēbē being imposed on by inferior guns ; they know well enough the requisites of a good musket, and the chief, although preferring for his "boys" the stout and serviceable military brown bess, when purchasing for his own use, asks shrewdly, where are the guns *you shoot with* ? The horses too, are also subjects for negotiation ; a "salted animal", i.e. one that has recovered from the "sickness," and is supposed not to be again liable, is worth a price almost exorbitant compared with that of one unacclimatised ; and here the cunning chief had almost over reached himself, for when Mr. Chapman honestly informed him he could not warrant the horse, the impression on his mind was, that the horse was really "salted," but that the owner, not wishing to part with it, was depreciating his own property.

His mode of administering justice was characteristic. A poor Makoba or boatman (of the original river tribes, subjected by the Bataoana) was severely flogged for stealing an adze, while other articles which the travellers supposed to have been taken by persons of more importance were never heard of.

The description of the war council is interesting. About three hundred warriors, many with their naked bodies grotesquely painted, squatted closely down, the front rank holding their shields before them, while those in the centre raised them as sun shades above their heads ; the chief, dressed in European costume, but retaining his native ornaments, sat in an iron chair recently purchased, and his uncle, Málalōquē, a man more highly respected than he, stood near him. As each warrior finished his address, he rushed forward in a mimic sortie, and those who wished to applaud followed him, brandishing their spears, battle axes, or muskets, as if in contest with an enemy ; while the women, kneeling or sitting round, clapped their hands, and sang monotonous ditties in their praise.

Along the Bo-tlét-le river were scattered outposts and corn-fields and cattle stations of the Bataoana, and villages of the Makoba, or original canoe man of the river, now subjugated by them ; these last from the exertion consequent in paddling have more fully developed chests and shoulders, and the contrast between the slender figure of a young court favourite and his attendant Makoba was very striking ; one chief especially, named Makata, seems to have been a most indefatigable and successful hunter ; pit falls were dug in every possible game path, and the harpoons and lines for killing the hippopotamus were kept in constant readiness.

The desert tract between this river and the Zambesi was also well peopled by bushmen, some of whom were blacker and of greater stature than the generality, and when the travellers reaching the

northern limit of the plateau, descended to the valley of the Zambesi, they came among the scattered and dispersed remnants of various tribes of the Makálaka, who lived in constant fear of the predatory hordes of Mōšēlekātsē on the south east ; as well as of the Makalolo to the north and west.

Just previous to the arrival of the travellers, a party of Matabili had dispersed a tribe, killing the chief and destroying their crops, the survivors seeking refuge in "clumpjies," twenty men, and four or five women in one place, and forty men and half a dozen women elsewhere, but with no children, all the younger people having been carried into captivity.

To the credit of the chief Sechēli it is recorded that the travellers here fell in with the wagon of an ambassador, sent by him to demand from Sekelētū, restitution of the property plundered from the unfortunate mission party, of whom so many died in his country, certainly from harsh treatment and neglect, if not, as from native testimony there is too much reason to believe, from actual poison.

Of the Makalolo themselves we hear but little, as the travellers came in contact only with one of their outposts at the ferry above the falls, where the petty jealousy of Mōshotlāni, the head man, was again contrasted with the liberality of a native "gentleman" in the vicinity ; a present was sent by Mr. Chapman to Sekelētū, with a request to be allowed to hire ten men to assist in navigating down to the coast, the boat the travellers wished to construct below the falls, but we do not learn what answer was returned.

Some weeks were spent in surveying the magnificent Victoria Falls, Mr. Chapman photographing, and Mr. Baines sketching, at every possible opportunity, and both the travellers taking for geographical purposes, whatever observations were practicable. Of these falls we shall speak more in detail when we notice the work recently published by Messrs. Day, from the paintings of Mr. Baines, and shall conclude by observing that when they returned to their wagons, which the prevalence of the Tsetse, or deadly cattle fly, prevented their bringing near the river, Mr. Baines started with a troop of Makalakas and Damaras, carrying tools and materials, in search of a place to rebuild the deficient portions of the boat and settling on an eminence which he named Logier hill, after an esteemed friend in Cape Town, was joined by Mr. Chapman, and made a trip to ascertain the navigability of the river below. Of their efforts to complete the boat and provide for the safe return of the wagons, dashed almost in the very moment of success by a sudden and deadly attack of fever, obliging them for the sake of the people to retreat to the high lands of the desert, he speaks but briefly. In fact we believe that the

rough diary was only partially in England when it attracted the attention of the publishers, and neither prepared nor intended for anything beyond the extraction of such geographical information as it might contain, when it was casually seen by Mr. Longman, who undertook the publication, while the task of revising and correcting for the press fell almost entirely on the mother of the artist, to whose unwearied devotion to the work, with the kind assistance of Captain C. George in reference to the observations for geographical positions, whatever credit it may be deemed worthy of is mainly due. The maps carefully drawn by Mr. Baines, from the joint observations of Mr. Chapman and himself, have been faithfully engraved by Mr. E. Weller, and considerably enhance the value of the record.

The author, while he has no sympathy with that class of philanthropists who injure the cause they strive to serve by representing the native as living in a state of primæval innocence till he learns wickedness by contact with the white man, is equally removed from those who, on the other hand, would degrade the Negro to the level of the gorilla—his object has been fairly to record the impression produced on his own mind by events of which he became cognisant, neither shutting his eyes to the degrading vices of the savage, nor seeking to deny him such virtues as are occasionally displayed even by the most barbarous.

Mr. Baines writes in a quiet, unassuming style; and his observations we believe to be thoroughly trustworthy. We especially commend the perusal of this work to the students of the descriptive anthropology of South-western Africa.

Mr. Baines has also just published a series of faithful reproductions, lithographed by Messrs. Day and Son in fac simile of the original of eleven of the oil paintings executed from sketches taken during a residence of above three weeks in the immediate vicinity of the Falls, which will convey to the English public some idea of the wealth of waters in tropical South Africa to the northward of the Kalighari desert.

These magnificent cataracts were first seen by Dr. Livingstone in 1855; but two years previously, Mr. James Chapman, a long known and highly esteemed friend of the artist, had visited the Zambesi, and had actually engaged a canoe to take him to the Falls, when the crew were recalled by Sekelētu, and he was obliged to forego the honour of being their discoverer.

Mr. Baines leaving the Zambesi Expedition commanded by Dr. Livingstone in 1859, found refuge in Cape Town with his steadfast friend Logier, by whose kindness he was mainly enabled to equip himself for another journey, and meeting again with Mr. Chapman, who

was preparing for an expedition to the interior, they agreed to attempt the passage across the continent from Walvisch Bay on the west coast, to the Delta of the Zambesi on the east. Mr. Baines constructed for the navigation of the lower river, a pair of copper boats in sections, of which, unfortunately, they were only able to convey a part to the place where they might favourably have been put together.

Various branches of the Zambesi appear to rise not far from the west coast, flowing through a level country nearly to the centre of the continent, where the Falls are formed by a deep narrow chasm cleft across the broad bed of the river, which, plunging four hundred feet into the abyss, escapes by another cleft joining the first at nearly three-fourths from its western end, and prolonged in abrupt zigzags and redoublings for many miles, engulfing the narrow lower river far below the level of the surrounding country, occasionally opening and again contracting, and traces of it appearing nearly to the Indian Ocean, more than eight hundred miles away.

Above the Falls, where the river is nearly on a level with the surrounding country, palms and tropical vegetation abound, and long reaches are descended on rafts or navigated in canoes, almost the only difficulty being occasioned by the thick growth of reeds in the shallower portions. Below them no continuous navigation is possible for eighty or a hundred miles; but beyond this long open reaches alternate, with rapids and narrow gorges, the most dangerous being those of Chicōva and Kēbrābāsa.

Leaving the wagons at a distance for fear of the deadly cattle fly, the travellers proceeded on foot over the long red sand hills, and bivouacking on the northern slope, heard during the stillness of the night the deep monotonous roaring of the Falls, not less than sixteen miles away, and on the morning of the 23rd of July, 1862, saw, for the first time, the clouds of spray and vapour rising 1200 feet from the abyss, with the broad upper river glancing like silver in the sunlight beyond, and nearer to them caught an occasional glimpse of the dark green water of the lower stream, winding in abrupt redoublings between the cliffs of its deep and narrow chasm.

Passing through the forest, rich in every tropical form of vegetation, they at length reached the vicinity of the Falls, every footstep of elephant, hippopotamus or buffalo being filled with fine clear water raining down to leeward in an incessant shower from the overhanging spray, and putting aside the branches that obstructed their view they stood upon the very edge of the chasm and looked down upon the Falls.

At the western angle, or immediately opposite, a body of water fifty or sixty yards wide came down like a boiling rapid over the broken

rocks—the steepness of the incline forming a channel for the reception of a greater body of water, and causing it to rush forward with accelerated violence, so as to break up the whole into a snow-white fleecy irregularly seething torrent, with its lighter particles glittering like myriads of diamonds in the sunlight, before it leaped sheer out from the edge of the precipice into the abyss below ; then interposed dark masses of cliff, and again long vistas of waterfall, partly hidden by the misty spray-cloud reflecting in the rays of the tropic sun a double rainbow of wondrous beauty. And as the friends passed on through the dank wet forest, on the southern edge of the chasm, they encountered a herd of buffaloes, and a battle ensued, which forms the most animated picture of the series.

The cataracts east of Garden Island, seen through the dark portals of the outlet, afford material for a striking picture, and the view from the edge of the cliff overhanging the mighty cataract of the leaping water at the west end of the chasm, contrasts with the shallower rills and spray-falls at the eastern end. The series is also varied by a picture of Zanjueelah, the skilful and daring boatman of the rapids, taking the artist and his friend in the little skiff to Garden Island, and is completed by a sketch of the dark green torrent of the lower river doubling round the profile cliff, the reddish yellow sides of which glow with increased warmth of colour in the light of the setting sun.

The frontispiece is an attempt to represent the general character of the Falls, and especially the contrast between the breadth of the upper river and the narrowness of the gorge below it, as it would be seen could the observer be raised perhaps a mile in the air above the western angle, when, if the position of the sun was favourable, the rainbow would be seen spread horizontally upon the spray beneath. Of course no one has, or perhaps ever will obtain, such a view ; but this having been compiled by the artist from his various sketches, and from three weeks' observation by himself and Mr. Chapman, may be regarded as giving the most accurate idea that can be conveyed by anything except the model constructed by him, which may now be seen in the rooms of the Royal Geographical Society.

The work was undertaken under the special patronage of some members of the Geographical Society, and other scientific men. Dr. Kirk, who visited the Falls with Dr. Livingstone, has testified to the artistic merit and truthfulness of the paintings ; and when they were first exhibited in Cape Town, Mr. E. Layard, the talented naturalist and Curator of the Cape Museum, and others who had seen the Niagara Falls, declared unhesitatingly that those of the Zambesi must be by far the grander of the two.

We have only to regret that, after successfully combating so many

difficulties, the travellers were obliged to abandon their design of descending the river, when they had so fair a prospect of having a boat ready to descend it, with the coming flood. We join in their hope that they may before long be again in a condition to attempt it; and we look forward with much pleasure to Mr. Chapman's forthcoming work, the result of many years travel in South Africa, which we feel sure must contain much valuable information respecting the various native tribes.

We understand that Mr. Baines has placed in the hands of Messrs. Day and Son a series of oil paintings representing the various natives of Kaffraria—South-Eastern and South-Western Africa—the majority of these are faithful portraits, actually finished while the natives sat, more or less willingly, to the artist as he worked under the shadow of the wagon awning, or perchance a rude grass-covered hut, far in the interior of the country. They have all at various times been exhibited before the Anthropological or Royal Society.

THE SECT OF MAHÁRÁJAS.*

THE Jesuit priests who followed in the train of Spanish conquest in America delighted in drawing parallels between the Old World and the New, demonstrating to their own complete satisfaction,—and using arguments of fire and faggot to those individuals who ventured to differ, however respectfully, from them,—that his Satanic Majesty had caricatured the institutions of the Judaic dispensation in the Occidental Continent. The historical researches of modern times have nullified the pet theories of the gentlemen who saw the devil in everything, and, as our real knowledge widens, we find instances *galore* in the Old World quite upholding its preeminence for wickedness and absurdity under the cloak of religious belief.

Mormonism, with its peculiar institutions, is a new and flourishing system, but Joseph Smith is not original in his ideas. India has maintained its character as an initiatory people, and a species of Mormonism has flourished in the Hither Peninsula for some centuries, as will be seen by the following statements, drawn from an elaborate and carefully-written volume now before us.

The existence of numerous sects among the Hindus is a well-known fact. Founded primitively upon the Vedas the Hindu worship con-

* *History of the Sect of Mahárájas, or Vallabhúcháryas, in Western India.* Trübner and Co.

sists in the adoration of Brahma, Vishnu and Siva, but owing to the strife which the religious opinions of the various schools of philosophy occasioned, a spirit of dissent arose, and India became the arena of fierce controversy at a very early period.

Thus, on the one hand, the worshippers of the Deity preferred to adore some special form under which he originally appears in the Vedas; and on the other hand, the philosophers gradually receded from each other, and formed several Darsánas or schools. In process of time the worship of Brahma has disappeared, as indeed that of the whole pantheon, except Vishnu, Siva, and Sakti, or modifications of these forms. The representatives of the two former have, in fact, superseded their prototypes, and Krishna, Ráma, or the Linga, are now almost the only forms under which Vishnu and Siva are adored.

In the Darsánas there gradually arose heresy, and though it is difficult to distinguish these schools, the principal systems seem to be the Saugata, or Bauddha; Arhata, or Jaina; and Várhaspatya, or atheistic school.

Attempts made at various periods to reintroduce the sole worship of Brahmá, Para Brahmá, the supreme and only ruler of the universe, were generally unsuccessful, and hence at the present day the worshippers of this faith consist of the Vaishnavas, Saivas, and Sáktas, or the adorers of Vishnu, Siva, and Sakti. Into the peculiarities of these sects it is unnecessary for us to enter on the present occasion, as we wish only to give here a brief account of the sect of Mahárajás.

The Vaishnavas, or worshippers of Vishnu, are divided into a multiplicity of sects; some of these enjoin asceticism, but the general classes of the rich, the luxurious and the indolent, and especially females, attach themselves to the worship of Krishna and his mistress Rádhá, either jointly or singly, under the names of Vishnu and Lakshmi. But there is yet another form of the worship of this popular divinity, that is, the worship of the Bála Gopála or Bála Krishna, the infant Krishna, a worship widely spread throughout all ranks of Hindu society, and first promulgated by the founder of the sect, under the name of Rudra Samprádáya. The name of the institutor of this sect was Vallabháchárya, and this heresy is also known as the religion of the Gokulastha Gosáins, from the title of its teachers.

The first teacher of the philosophical tenets on which the present doctrines of the sect are founded, was Vishnu Svámi, who was a commentator on the Vedaic texts. He was followed in his teaching by Dnama Deva, Kesáváchárya, Herálál, Sridhar, and Bilava Mangala. Bilava Mangala was succeeded, but how soon it is not known, by Vallabháchárya, the second son of Lakshman Bhatt, a Tailinga Brahman.

This Lakshman Bhatt was descended from a Brahman named Náráyan Bhatt, inhabiting the village of Kánkrava, and was the fourth indirect descent from him. He promulgated the idea, now so implicitly believed in by this numerous sect, that he had been promised by Krishna that he should have three sons, and that his second son should succeed him as the incarnation of himself, the god. His wife's name was Elmágár, and their first son was Ráma Krishna.

Lakshman Bhatt with his wife and infant son went on a pilgrimage from Alláhábád to Benares, but a conflict arising between the Mussulmans and the Sannyásis, he fled with the family, and arrived in a desolate place named Champáranya, where Elmágár, seized with premature labour pains, gave birth to her second son, on Sunday, the 11th day of Vaisákh Vadya Samvat, 1535 (A.D. 1497).

This child was Vallabha. Legends say that when he was born a golden palace sprung up on the spot, the gods showered down flowers, the houries danced around, and the gandharvas (heavenly songsters) sang. The mother relying upon the protection of Krishna, exposed the infant under a tree, and fled. When the troublous times were past, the parents returned, and found the child playing in the midst of a sacrificial flame. He was then taken with them to Benares, and received the name of Vadtrabha, afterwards changed to Vallabha. His followers erected a temple on the spot where he was born. His younger brother was Kesáva.

When older he was placed under the tuition of Náráyan Bhatt, and it is asserted in his biography, that the rapidity of his apprehension was miraculous, and in four months he learnt the whole of the four Vedas, the six Shastras (schools of philosophy), and the eighteen Puránas—an accomplishment which a mature scholar cannot hope to acquire during his whole life. When eleven years of age, Vallabha lost his father, and in the following year he took leave of his mother, and bidding farewell to Gokul, the village of his residence, near Mathurá, he started on a pilgrimage through India.

At a certain town in the south of India, he became acquainted with Dámordardáas, a rich and important person who became his first disciple. The pair proceeded to the city of Vijayanagar, where the maternal parents of Vallabha resided. Krishna Deva was king of this place, and before him, Vallabha disputed with the Saivists, or devotees of Siva, to the great satisfaction of the monarch, who liberally rewarded him.

On account of this disputation with the Smártá Brahmans, the Vaishnavas elected him their chief, with the title of Achárya, and from that time his influence was established. He subsequently visited many towns and returned to Benares, and afterwards at Brendávan

was honoured by a visit from the god Krishna in person, who then enjoined him to introduce the worship of Bāla Gopāla or Bāla Krishna. This is the sect of Rudra Sampradāya, and the subject of the present inquiry.

Vallabhāchārya finally settled at Benares, and there composed a series of treatises, in which his doctrines were proclaimed, chiefly in one entitled the *Bhāgavata Tīkā Subodhini*. Vallabha married a Brahman girl named Māh Lakshmi, and shortly after this he erected at Vraja an image of Sri Nāthji in Samvat 1576 (A.D. 1520) on a sacred hill called Govardham Parvata. At Benares he held disputations with the followers of Sankarāchārya the great Hindu philosopher, and the books of the Mahārājas record that he defeated all competitors.

In Samvat 1567 (A.D. 1511) Vallabha's first son Gopinātha was born, and in Samvat 1572 (A.D. 1516) his second son Vethalnāthji was born; to the second son the incarnation of Krishna was presumed to descend. After educating these children he withdrew to Benares, where he became an ascetic, but finally he descended into the Ganges at Hanumān Ghāta, and thence ascended to heaven in the presence of a host of spectators, and was lost in the firmament. At the period of his departure Vallabhāchārya was fifty-two years and thirty-seven days old. His seat was first adjudged by the king of Delhi to the eldest son, but as he soon died, Vithalnathji became the sole representative of Vallabha.

Vallabha up to the time of his death had made eighty-four proselytes to the creed of Pushti-Mārga, or the eat-and-drink doctrine, to which we shall presently refer. His son made two hundred and fifty-two disciples, and took long journeys for the purpose of preaching the faith of Bāla Krishna. He made proselytes among the baniās or bankers; the bhāttias, the kaubis or farmers; the sutāras or carpenters; and the lowars or blacksmiths: some Brāhmans, and also some Mussalmāns also became converts. All these various castes ate and drank at the same table, in total violation of the caste system, but since that time the caste system has been restored.

Vithalnāthji, also known by the name of Gusāinji, went in Samvat 1621 (A.D. 1565) to Gokul, the birth-place of Krishna, where he proposed to end his days, but he afterwards went to Mathurā. In Samvat 1629 (A.D. 1573) we find him again at Gokul, and his permanent residence in the sacred city acquired for him the title of Gokul Gusāingi, perpetuated in all his male descendants. When seventy years and twenty-nine days old in Samvat 1649 (A.D. 1583) Vithalnāthji quitted the earth, leaving seven sons behind him, who all assumed the incarnationship, each having his own *gadi* or seat, and making converts throughout India.

The fourth son, Gokulnathji, became the most famous of the leaders of the sect ; his followers keep themselves apart from all the rest of the sects. About this time they first acquired the name of Mahá-rájahs, which indicates their peculiar supremacy. There are many designations for them, such as Maháráj Gusáinji, Vallabha Kula-Agni Kula, Guru, and others ; but the name for which they have the greatest reverence is that of Gausvámi, i. e., Lord of Cows, applicable also to Krishna.

The worshippers of this sect are widely diffused throughout Bombay, Cutch, Kattywár, and Central India, especially in the province of Málcoá. They are wealthy merchants and bankers, and at Mathurá and Brindávan they have establishments. There are two temples of great wealth at Benares, and the city of Jegannath in the east, and the city of Divarka in the peninsula of Guzerat are both esteemed as very sacred. There are at present about sixty or seventy Mahárájas dispersed throughout India, but with the exception of one or two they are grossly ignorant, and steeped in the lowest sensuality. To use the words of the author of this *History of the Máharajas**—

"They, however, fear no desertion, owing to the infatuation of their followers, and never take the trouble to preach, but give as an equivalent, public exhibitions in their temples to divert attention. Vallabháchárya taught that privation formed no part of sanctity, and that it was the duty of their teacher and his disciples to worship their deity, not in nudity and hunger, but in costly apparel and choice food ; not in solitude and mortification, but in the pleasures of society and the enjoyment of the world. In accordance with these precepts, the gosáins, or teachers, are always clothed in the best raiment, and fed with the daintiest viands by their followers, over whom they have unlimited influence. These gosáins are often largely engaged in maintaining connection amongst commercial establishments in remote parts of the country ; they are constantly travelling over India under the pretence of pilgrimage to the sacred shrines of the sect, and on these occasions they notoriously reconcile the profits of trade with the benefits of devotion. As religious travellers, however, this union of objects renders them more respectable than the vagrants of any other sect. Priestly craft is ever alert to obtain by fair means or foul the wealth needful to the sustentation of its power and self-indulgence. This is a vice not limited in its operations to India, or to the chiefs of the sects of the Hindu religion ; it pervades all human society with greater or less energy. This scheme is supported by very plausible and just reasoning, for it is but right that those whose function is exercised for the behoof of society at large, and who are precluded from obtaining the means of livelihood from those sources common to the majority, should be supported by that majority for whom their labours are performed ; and it is only when

* *History*, pp. 45, sq.

urged to excess, for culpable purposes, that this become reprehensible. The Mahārājas, consequently, as teachers of a doctrine and priests of a religion, when duly restricting themselves within their province, are thoroughly entitled to the means of living at the hands of those whom they teach. It is merely perversion and excess that can be complained of. The source of the permanent revenue of these priests is a fixed *lágá* (or tax) upon every article of consumption which is sold. This tax, although but trifling in each individual case, amounts to a considerable sum upon the innumerable commercial transactions that take place, and is always multiplied in each case where articles pass from hand to hand for a consideration. There seems to exist an unlimited power on the part of several Mahārājas to impose this tax, and to add *lágá* upon *lágá*. When, therefore, we consider the swarming population, the great consumption, and, consequently, the thriving business which is carried on, and the fact that the fixed revenue is often greatly augmented by the presents and votive offerings which are made by their followers, from affection or fear, the wealth, indolence, and luxury of the Mahārājas follow as a matter of course, and the corruption of society ensues as the result of their dissolute and effeminate teaching.

“It is not necessary that we should further particularise the branches of the genealogical tree springing from the root of Vallabháchárya : it suffices that, like the deadly upas, they overshadow society with their malignant influences—in Western India especially ; and it is with a view to counteract this blighting tendency that the present work has been undertaken, in the hope that the exposure of their acts and doctrines may eventually bring their converts to reflect upon the depravity of their practices, and the utter incompatibility of such vicious doings with a pure faith. The original teachers may have been well-disposed men, but their descendants have widely diverged from their courses. The infatuation of the Vaishnavas is so great, that all the descendants of the Mahārājas are held from infancy in extreme veneration, and are nurtured in ignorance, indolence, and self-indulgence. They are empowered by their votaries to gratify through life every vicious propensity ; and when, exhausted by vice, they pass away in premature old age, they are held by their votaries to be translated to the regions of perfect and ecstatic bliss. Although totally destitute of every pretension to even personal respectability, they nevertheless enjoy the unlimited homage of their followers.”

Having now learnt the pedigree of Vallabháchárya, it is time that we turn to the practical doctrines he inculcated, and perceive the shocking effects upon Indian society produced by them.

The cardinal idea of the doctrine of Vallabháchárya is the incarnation in his person and in that of his descendants of Krishna, and the enjoyment for that reason, of the right to confer upon the faithful the privilege upon this earth of a personal union with the deity of their worship. Theoretically speaking, were this personal union to

be regarded spiritually and held to elevate the mind to an intimate union with the highest moral principle; were it to hold forth by meditation and isolation some incentive to a consideration of self-annihilation and self-denial, this doctrine might have claims upon our attention as doing some, however limited, a good. But preached to a people who, from climatic influences and early conditions of puberty are peculiarly lascivious and prurient, the evil grows more and more enormous with the progress of the sect. That any system of religious worship, if sincerely conducted, need not necessarily entail an abandonment of the legitimate pleasures of life, stands to reason. Gloomy faiths, bound to asceticism, have no real hold upon the moral conduct of the professors of them, but a religion which rushes into an opposite extreme, and stimulates an evil too great already for the patience of mankind and civilisation, deserves to be trodden out.

Anthropologically speaking, no greater evil can exist than the system of promiscuous intercourse between the depraved Maháráj and his blinded victim. The descendants of Vallabha, these wretched men, who from youth give themselves up to such practices, grow prematurely old, and set examples to the members of the sect, ultimating in decrepitude and death. It seems an amazing thing to consider that such a miserable and absurd superstition should, in an intellectually gifted country such as India, endure for any time. The very foundation of the doctrine is so opposed to common sense that it is matter for wonder that there is not a common outcry on the part of rulers and ruled.

At the beginning of this article we spoke of the Mormons, and alluded to the spiritual wife doctrine and the polygamic practices prevailing in Utah, but they are really respectable when placed in juxtaposition with the worship of Krishna by the sect of Vallabháchárya. The student of the science of man will find much material for reflection in this *History of the Mahárájahs*. It is not our intention here to enter upon any analysis of the Maharaj libel case; that an effectual blow was aimed at the system by enforcing the attendance of Jadunáthji Brizratanji Maháráj in the High Court of Bombay is a matter for congratulation. Imagine a superstition so gross and impudent as to lead a large class of persons to support the Maháráj in question in resisting a citation to the Government Court on the plea of the holy character of the individual summoned! To these men the members of the sect dedicate everything, by *tan*, *man*, and *dham*; "the dedication thereof," says a witness,* "includes wives, daughters, sons, property, body, soul, etc." Adultery in this sect is considered a virtue, and the Maháráj confers an honour in receiving the visits of the women of his sect. Everything in this ridiculous religion is of a

* Trials, p. 53.

piece. The Máharaj becomes the proprietor of the sectary, and is adored as God himself; and, merely adding that even the water falling from his *dhotar* or loin-cloth is drunk with religious awe, we leave those who desire to learn more to refer to this important and fearless exposure of the doctrine of Vallabháchárya, hoping that the author may see the system entirely done away with, and the interested and depraved priesthood properly punished.

SPANISH ANTHROPOLOGICAL SOCIETY.

TRANSLATION OF THE SECRETARY'S ADDRESS.

GENTLEMEN.—I must occupy your attention for some moments, if only on the strength of traditional custom, which requires on such an important occasion of scientific rejoicing and prosperity, that the Secretary of the Society celebrating its inauguration should give some account of the condition and administration of the Society he represents.

I do not ask for your indulgence; aware of your well-known liberal opinions, I am sure I already have it; but, knowing my own incompetence, I come as a humble pilgrim, to beg that you will receive with kindly welcome, one who, with good motives and heartfelt enthusiastic faith, tries to fulfil a duty which, though imperious and tyrannical, is still a fundamental rule. Believing in my good intentions, may you forget my want of power, thus adding another proof to your generosity.

The young Spanish Anthropological Society adorns itself to-day for the first time with the embellishments of luxury and magnificence, thus giving a tangible proof of its installation and firm footing. Having had no past existence, it has as yet produced nothing which should distinguish a society aspiring to the acquirement of rank and consideration; neither can it avail itself of that shield which adorns those who are accustomed to those proud contests of knowledge in which science reaps such a harvest of pure and perfumed laurels.

The Spanish Anthropological Society appeared on the horizon at the instance of two humble professors of medicine, who communicated their ideas to some others of their companions who received it with enthusiasm, formed themselves together, and arrayed themselves in the number of those who now address you. The idea was in the minds of all—all felt the want of one free and entire centre, in which the natural history of man, and all branches of human knowledge

relating thereto should be studied and discussed. This explains the surprising growth of this Society, which still scarcely counts its existence by days.

The unexpected foundation of the Spanish Anthropological Society is due to the zealous and indefatigable Doctor Don Pedro Gonzalez Velasco and to him who has now the honour of addressing you. In the first meeting, celebrated the 6th of November, 1864, in my house, by our invitation, a Committee was appointed, consisting of the following gentlemen :—Don Matias Nieto y Serrano, Don Manuel Maria José de Galdo, Don Ramon Torres Muñoz de Luna, Don Sandalio de Pereda, Don Juan Vilanova, and the two originators of the idea, to construct a scheme of laws and regulations. This Committee soon fulfilled its trust, and in a second and much more numerous meeting, which was held the 27th of November, 1864, in the saloon of the under-graduates in the central University, the scheme was approved of with some slight variations. It was agreed that the same Committee should undertake to obtain the approbation of Her Majesty's Government, and also the preparatory labours indispensable to the realisation of the idea.

On the 14th of May, 1865, the organising Committee of the Spanish Anthropological Society invited the original founders and others who had joined them to a meeting, in order that they might render an account of the fulfilment of the duty with which they had been honoured. At this meeting the Officers and Council were elected, and the Society was declared legally established, by virtue of a royal order, issued the 16th of March, 1865, to the following effect :—

“Ministry of the Interior, Department of Public Instruction.

“Madrid, 16th March, 1865.

“YOUR EXCELLENCY,—In consideration of the application made to this department by various professors of medicine, soliciting authorisation for the formation of a society for the purpose of studying the natural history of man, and those sciences connected therewith, and in conformity with the advice of the Royal Council of Public Instruction, the Queen, whom may God preserve, has authorised the formation of the aforesaid Society, to be called ‘The Spanish Anthropological Society,’ in conformity with the ordinance of this date. And, considering the laudable objects of this Society, acknowledged as one of the most useful and interesting sciences, Her Majesty commands me to convey to your Excellency, which I now do, in compliance with the Royal Order, an assurance of the pleasure with which she has received the idea of the originators, whose object is to procure the advancement of one branch of science, and of inviting other professors to try and advance other studies which are less cultivated in our country. May God preserve you many years.

“GALIANO, Director-General of Public Instruction.”

Such, gentlemen, is a brief summary of the history of the Spanish Anthropological Society, which is solemnly inaugurated to-day. You see to what its real object is limited. The administration should be conducted at its smallest possible expenses, in proportion to the sums which have been received as entrance fees and monthly subscriptions in advance up to the end of the present year in conformity with the regulations. It now only remains for me to inform you that our Society is at present in correspondence with the Anthropological Societies of Paris and London, and with various Societies of natural science in enlightened Germany—all these have given us a joyful welcome.

It is only strictly just, though with grateful satisfaction to myself, to inform you of an act which speaks most highly in favour of my very distinguished friend Doctor Don Pedro Gonzalez Velasco. This indefatigable student, not content with having originated the idea of the Spanish Anthropological Society, has offered a spacious and elegant apartment in his own house (Calle de Atocha, 90) where the Society may hold its meetings. He has also placed at its disposal all objects contained in his well-known Museum that can in any way contribute to the study and advancement of anthropological science. Such generous disinterestedness needs no comment; it speaks for itself more eloquently than words could do, a sufficient refutation to those gratuitous and unjustifiable aspersions which inveigh and have always inveighed against a man whose life has known no other motto than that of incessant labour. Inspired by the noble idea of adding to the glory of his country, Dr. Velasco looks on this Society as the cherished offspring of his intellect. It required a great thought to cicatrise, like a healing balsam, the deep wounds which Fate has harshly destined him to suffer.

Amongst the Members of the Spanish Anthropological Society we find individuals devoted to the study and culture of all branches of learning; some of these are men of already reputed eminence, distinguished in that aristocratic and enviable hierarchy in which true merit alone finds a place, which is acquired only by vigils of labour, marked by the impulse which truth gives to that vigorous perseverance, and thus occupy the highest seats among those who rule the destinies of our country, but with unaffected modesty they join in our studies, feeling the necessity of a truce, if but for a short time, to that rude struggle of politics, in which the roar of excited passions is never hushed, and a breathing space and tranquil rest in the pure air of science.

The Spanish Anthropological Society arose, gentlemen, as you have seen, under the most favourable auspices; its foundation, legalised by a royal edict, which is an exception in the history of the past, but a

smiling hope for the future. Let us do honour to this sanction of Her Majesty's Government, to the aurora borealis of a new era, for free science, free association for work and study. The Queen's Government recognises the object of our Society as laudable, and as one of the most useful and interesting sciences, receiving with pleasure an idea, the object of whose originators is to advance one branch of human knowledge, and to incite others to prosecute with more vigour those studies least cultivated in our country.

Such a royal edict, gentlemen, is the highest legal sanction we could desire, not only for our undertaking in itself, but also for the objects which it embraces, and for the means which it will use to perfect itself, namely, free association and free discussion. Her Majesty's Government feels the imperative necessity for science to open the barriers to the understanding; in this struggle it binds on the cuirass itself to cover the breasts of the strong champions of ideas, who are urged on by fervent aspirations for incessant intellectual progress. A touching tribute which reason and justice pay to the grandeur of an idea and the spirit of the age.

Spain! noble and scientific Spain! is fortunate in seeing the ardent enthusiasm of her sons, springing up afresh; those lovers of study, who zealously and eagerly answer to that peaceful call, which announces for them a place of union, with the magical word of combat. Noble awakening! it is not that of the lion who has haughtily slept and awakes to find himself fettered, but it is that of the eagle, who, after having rested for a brief space, wings his flight with increased vigour to still higher spheres.

The Spanish Anthropological Society inaugurates a fraternal association, at whose banquets all sciences have a welcome and a share, all are included in the object of its institution, all may contribute some mite from their riches to the grand and complicated study of man's natural history. This is the idea of all the members now composing it, and also that which is approved of by jurisprudence. Jurisprudence, gentlemen, which, powerfully interested in the fate of man, has been studied in all ages, followed by all nations, conquering the barbarism of our early times. Jurisprudence, which displayed itself majestically and luxuriantly in the palmy days of Rome, slept in the dark shadows of the middle ages, and woke at length with the revival of letters, to shine for ever on the horizon of nations. From thence she contemplates patient zoology, investigating and constructing an antediluvian world with the fragments of a bone; illustrious geology, demanding from earth's lowest depths the light of truth to penetrate into the composition of the terraqueous globe; watches anon impartial and conscientious history, which, gathering

future generations in one hand, shows them the grand deeds of the past, engraved in gold in the book of glory, demonstrating, at the same time, the true and terrible antithesis of those sad ages, which written in characters of shame and grief, serve to perpetuate, like an ignominious epitaph, the names of those who were the actors. Not far from her stands philology, who, serving for the grammar of language, descends, like Ariadne's thread, to the most remote periods, and lending a powerful support to ethnography. Let us look, too, amongst ourselves, to chemistry; that final and exact analysis of all things, organised or non-organised, surprising us by its agencies, which seem created in a world of mystery, applying the result of its wonderful investigations to the science of life, and holding out a benevolent hand to that which devotes itself to the preservation of health. She, who appears at her side, surrounded by mathematical instruments, which serve equally to study the heavens studded with stars, or the most delicate phase of matter, is natural philosophy, that learned branch of science which studies the existence of being, and which, conjointly with chemistry, wills that all things shall be intelligible, and so appeals to reasen the graphic language of the senses. And farther off, can you not see the matron with the meditative and serene countenance? she is the synthesis of all science and all truth—Philosophy, she who penetrates to the depths of all human knowledge, who investigates, reflects, judges, and sums up, sometimes with purely speculative criticism, other times experimental, at others metaphysical; who, soaring into the most lofty regions of imagination, with better will than fortune, loses herself in the labyrinth of the most unfathomable abstractions. Let us finally look at medicine, studying human organisation even to the invisible cells and all the functions of the organs which constitute the physiological state; directing its attention to the couch of pain, and catechising nature, observing her manifestations, and learns by induction to attain to all that it is possible to reach in the varied and complicated book of human suffering; to walk with surer steps, and aided by therapeutics to procure a remedy. Noble and philanthropic priesthood!

Thus, gentlemen, briefly and slightly sketched are some of the sciences we represent, all of which contribute their share to the magnificent study of the noblest work of the all Omnipotent Man. Beautiful and philosophical employment! Around that being whom the God of heaven created in His own image, the students of every branch of science quickly gather, and with enthusiasm and good faith cordially welcome intelligent fellow-labourers, and fraternally invite them to explore with them the profound sea of anthropology. The proposition is grand and noble, and most worthy of respect and consideration if

only for the pure and noble intentions of those who tread in its paths. To wish to detain them on this road, or wilfully to misinterpret the object of their inquiry, would be not only a weak and powerless undertaking, but at the same time the most stupid error those could commit who, incited by false dogmatic zeal and with extreme impiety, hold those as irreligious, who, guided by the effulgent star of intellectual and scientific progress, hunger for truth and thirst for light to investigate great and transcendent problems, using the supreme and sovereign free-will of intellect and unrestrained criticism of science. To try and impose limits to thought is as vain and senseless a wish as to hope to set limits to the sea, or to lessen the ardent and life-giving heat of the noon-day sun.

According to the first article of its rules, the Spanish Anthropological Society will occupy itself only with the natural history of man and those sciences connected therewith. The sixteenth article of the same rules, says, "The Society will allow of no discussion foreign to the objects of the Institution." Let those who would be malicious interpreters of our intentions remember this, who forget, while they misinterpret them, that evangelical charity of which they boast so much.

No, a thousand times no, let us protest before the face of truth and by the most sacred privilege of justice against all intentional blame. We have associated ourselves, spurred on only by the strong incentive of labour, that brief and concise formula for all progress. Let us legally use the rights conceded to us, not limiting them in any way. Let us launch ourselves with prudence into those calm and learned discussions to which science leads, and which science, and science alone, can judge and decide. But let us not forget that all the great ideas, all the noble conceptions, which with such great strides have advanced the human intellect, have had their beginning in inquiry without fetters or restrictions. If the powerful and colossal brain of Newton had been limited and bound down, could he have been at the same time the immortal discoverer of the laws of light and gravitation? Imprison within narrow limits the glorious and virtuous Galileo, would it then have occurred to him to break through all the traditions of Aristotelian tradition, and to lay down laws which should be immutable throughout ages? On the contrary, it was necessary he should trample under foot the tyranny which could attempt to enslave the mind before he could pronounce those sublime words, "*E pur si muove*," the grandest poem which the inspiration of any mortal ever conceived. Grand, magnificent, divine idea, that conquered the conqueror, and conquered the more for being vanquished.

But though strong and vigorous from its commencement, the Society cannot boast of having accomplished all that is to be done;

it has advanced much, and gained much, but it has still the most steep and rugged part of its path to climb ; it has still to conquer for itself a name and a place in the republic of letters and science—the only road to this eminence is by persevering labour and patient investigation of what it has to study. Let us undertake our task with ardour ; let us justify by our deeds the rights we have already acquired ; let us give an example to societies already organised, by our labours ; and then let us demand that they grant us, what we have known how to deserve, a place among those societies who do honour to the science they represent and the country which has fostered them.

Offspring of two humble medical professors, the Spanish Anthropological Society interests all classes, and appeals to them to sustain and nourish her with pure and wholesome food ; to inspire her with vivifying heat and light for guidance. May she be a seal of honour and glory to the science which gave her birth, and also a centre of refuge for every zealous and enthusiastic student to whom the doors of other societies are closed, from their narrowness of opinion. What more could we desire, than to be able one day to exclaim, "Free I was born, free I grew, and free I made myself respected."

The medical profession in Spain has sufficient life and vigour in itself, without asking anything from Government ; when it does ask protection, when it solicits any especial professional regulation, or for protective laws, it in reality only shows the great consideration we might acquire in the society in which we live, and gives less an idea of our weakness than of our strength.

No, this is not the road we must take if we wish to attain a certain rank. If a solitary student by study and labour gains a well-merited fame, which is certain to place him before his brethren and the public, the step which would lead him to rank and fortune, is neither hereditary nor won by force. If you ask for assistance from a class composed of individuals of this social and scientific hierarchy,—of this enviable aristocracy whose heraldic shields they have engraved in quarterings of gold and topaz, they are ready to extend with generous hand all that may recruit the bodily but not the moral strength. This is little better than to beg for socialism, and so much the more odious as it is privileged.

Let the profession of medicine tread in a more honourable and fruitful field ; let it go forward in the van, improving the sanitary condition of those places uncared for by Government ; let them study sanitary reforms, basing them on statistical facts ; let them anticipate government, by showing them the way to perfect the hygiene in hospitals, camps, cities, and cemeteries ; let them establish a professorship, which should be gratuitous but as competent as the costly

official one, to instruct those who failed to pass our public examinations, rousing, at the same time, a noble emulation—the one, who is the guide of youth from love to his profession and the wish to advance science—and the one who teaches only from a sense of duty. When any class of society, let it be what it may, registers on its records such a standard of merit, it needs not to ask for protection. No, on the contrary, it may say to those who command, I will show you the way to better the welfare and life of those entrusted to you. Give place, then, to sovereign intellect !

I must conclude, gentlemen. I have already trespassed too much on your generous forbearance, which has been verified again to-day ; it has been my turn to be the favoured individual, and I am most grateful to you. I know I have passed beyond my limits in this slight sketch, but pardon me in consideration of my good intentions and the humility with which I ask for it. I felt that to you should be consecrated the modest flower which bloomed on the little cultivated field of my intelligence ; it does not boast of beauty, but in place of it has a perfume which ennobles it, that of my gratitude, that which is expressed in the sublime Latin sentence, “*Vitam impendere vero.*”

FRANCISCO DE ASIS DELGADO JUGO.

PHILOSOPHICAL ANTHROPOLOGY.*

“*Qui enim secundum carnem sunt, quæ carnis sunt sapiunt. Qui verò secundum spiritum sunt, quæ sunt spiritus sentiunt.*”—S. P. ad Rom., viii, 5.

THE above motto, which we find adorning the title-page, at once proclaims the object of the author, and the tendency of his treatise, which is pre-eminently orthodox. Not unlike the Giessen Professor mentioned by Vogt, our author looks at anthropology with a spiritual eye, and the result he arrives at may be easily guessed. Physiology, he complains in his preface, has ceased to be the science of the nature of man, but has become the science of organic functions. Its pretended vital or organic theories are those of an empty and revolting sensualism ; in short, it is repugnant. Physiology, therefore, should be cleared of the false theories issued from an empirical materialism, and should be confined to the study of the

* *Physiologie Générale ; Traité d'Anthropologie Physiologique et Philosophique.* Par le Docteur F. Frédault. 8vo, pp. 854. Paris : 1863. General Physiology ; a Treatise on Physiological and Philosophical Anthropology.

functions of the parts, and so become the science of facts and observations. But then there must be raised by her side, as a sister, not as a rival, a synthetic science, which, by bringing the knowledge of metaphysics to bear upon the facts, collects in a skilfully co-ordinated *ensemble* all the general questions which are indispensable to an exact and complete knowledge of the nature of man. Such, our author tells us in his preface, are the ideas which induced him to undertake a re-installation of general physiology, or anthropology, by conjoining into a legitimate union the wisdom of the philosophical schools with modern science. Dr. Frédault professes to be an humble follower of his revered master, J. P. Tessier, whose constant efforts were directed towards the re-installation of a Christian spiritualism in medical science.

The work is divided into five books.

After an introduction on the history of general physiology, Dr. Frédault discusses, in the first book, the question concerning the unity of the human species. But before entering on it our author tells us frankly :

“ We, as well as the best informed and most serious *savants*, entertain not the slightest doubt about the existence of only one human species. It is an old truth, a dogma of humanity, which it appears to us impossible seriously to attack ; and all the objections to it seem to us miserable *jeux d'esprit*. But science, nevertheless, is not satisfied with the simple affirmation of a dogma. It requires demonstration, proofs, and these we are about to give in this first book.” (P. 17.)

Our author accordingly proceeds to treat of the doctrine of species in general, commencing, as in duty bound, with the definition given by Moses that God created all beings after their kinds, (*secundum species suas*), and finishing with Cardinal Wiseman. Then follow chapters on the essential characters of species and varieties, forms of language and religion, and after citing a host of authorities, sacred and profane, Dr. Frédault arrives at the conclusion, that the differences in height, colour, the formation of the limbs, and of the cranium and pelvis are no wise specific, but merely accessory characters ; that all races can interbreed and produce indefinitely fertile descendants, and consequently that mankind form but one genus, one species, one order, and indeed a separate kingdom, in as much as religion, language, morality, industry, and the pursuit of the fine arts, which are the essential characters of human nature, separate man entirely from the lower animals.

The second book, containing four chapters, treats : of the soul, or the formal cause ; of the body, or the material cause ; of efficient causes, and of final causes.

The formula of the nature of man which, according to our author, results from what is proved in the above four chapters, is the following :—

“ Man is the natural compound of a reasonable soul substantially united to a body ; acting by efficient causes, and put into action by final causes.”

We have no space for extracts, and must confine ourselves to an enumeration of the rest of the books and their contents. The third book treats of acts, vegetative, animal, and intellectual. The fourth book is devoted to the laws of relation ; the fifth to modality ; the sixth and seventh to life and death, and the work concludes with a few observations on the soul in a separate state.

The author seems to us to have entirely failed in the object he aimed at, namely, in creating a synthetic science of man by engrafting metaphysics on physiology. Dr. Frédault, we know not on what principles, considers general physiology and anthropology to be convertible terms, for on the second title page we find, *Traité de Physiologie générale ou (or) Anthropologie*. We are not aware that in any language general physiology and anthropology, properly so called, are considered as synonymous terms. The results obtained appear to us meagre for so pretentious an inquiry. What must strike the reader is that in the chapter on species the names of some of the most eminent modern naturalists shine by their absence. * Thus we find no mention of Darwin and many others, whilst the work is overloaded with citations from saints and fathers of the church, which might well have been omitted without much loss to the reader. We find, therefore, not much scrupulousness in weighing evidence. A good work dealing with a shallow and self-sufficient raw materialism will always be welcomed ; but the man who is to undertake it must himself stand midway between extreme opinions and neither be a fanatical materialist, nor dominated by an improperly so-called orthodoxy, which our author evidently is, and whom, therefore, we cannot accept as a guide in science. We readily give Dr. Frédault credit for great research, but his arguments are neither new, nor do they throw any additional light on the subjects treated of. Still, with all its defects, we recommend the work to the attention of our readers, feeling sure that their labours will not be altogether unrewarded, for they will find in it quotations from a number of meritorious authors long forgotten, and whom our author has the merit of having rescued from oblivion.

BAKER'S BASIN OF THE NILE.*

MR. SAMUEL WHITE BAKER, having spent his life among wild beasts and savage men, and having earned some reputation as a sportsman in Ceylon, became ambitious of distinguishing himself in Africa, where several of his brother Indians had found glory, and some a grave. He desired to solve that geographical problem, which has excited by turns the efforts of the ancients, the modern Egyptians, and several European nations. A noble ground yet remains for explorers; and it is probable that more of these equatorial races are to be discovered, especially towards the western side, where all is blank. But the Nile question may now be considered as definitely settled. Bruce discovered the source of the Blue Nile, previously indicated by the Jesuit missionaries of the middle ages: to Speke and his companion, and to Baker, is due the honour of having placed upon our maps the correct position of the double basin, from which, in the days of Ptolemy, the White Nile was reputed to descend.

"The general principle," writes Mr. Baker, referring to this, "was correct, although the detail was wrong. There can be little doubt that trade had been carried on between the Arabs from the Red Sea and the coast opposite Zanzibar in ancient times, and that the people engaged in such enterprise had penetrated so far into the interior as to have obtained a knowledge of the existence of the two reservoirs: thus may the geographical information originally have been brought into Egypt."

The comparative importance of the two lakes will be best understood from Mr. Baker's own account, which is exceedingly concise and clear:—

"The Nile, cleared of its mystery, resolves itself into comparative simplicity. The actual basin of the Nile is included between about the 22° and 39° east longitude, and from 3° south to 18° north latitude. The drainage of that vast area is monopolised by the Egyptian river. The Victoria and Albert lakes, the two great equatorial reservoirs, are the recipients of all affluents south of the equator; the Albert lake being the reservoir in which are concentrated the entire waters from the south, in addition to tributaries from the Blue Mountains, from the north of the equator. The Albert N'yanza is the great basin of the Nile: the distinction between that and the Victoria N'yanza is, that the Victoria is a reservoir receiving the eastern affluents, and it becomes a starting-point on the most elevated source, at the point where the river issues from it at the Ripon Falls; the

* *The Albert N'yanza, Great Basin of the Nile, and Exploration of the Nile Sources.* By Samuel White Baker, M.A. 2 vols. Macmillan and Co. 1866.

Albert is a reservoir not only receiving the western and southern affluents direct from the Blue Mountains, but it also receives the supply from the Victoria, and from the entire equatorial Nile basin. The Nile, as it issues from the Albert N'yanza, is the *entire* Nile; prior to its birth from the Albert lake, it is *not* the entire Nile."

He also observes that Speke, "not having visited the lake heard of as the Luta N'zigé, could not possibly have been aware of the vast importance of that great reservoir in the Nile system." It is clear, therefore, that Capt. Speke went a little too far when he asserted that he had *settled* the Nile, though of all the discoverers he is perhaps deserving of the highest place. We shall now briefly follow Mr. Baker through the most charming narrative, and through one of the most splendid journeys ever made by an African explorer.

In April 1861, he sailed up the Nile from Cairo, accompanied by his wife. By the time that he had arrived at Berbèr, a considerable town in lat. 17° 58', he found that he was completely at the mercy of his dragoman, and was convinced that he could not hope for success unless he made himself independent of interpreters. He therefore determined to spend a year in learning Arabic, and also in exploring the affluents to the Nile from the Abyssinian mountains. The narrative of these travels, which will include many sporting adventures, he reserves for future publication. On June 11th, 1862, he arrived at Khartoum, the capital of the Soudan provinces. He describes this town as the seat of a military government of a very irregular kind. A talent for plundering appears to pervade all the military classes, from the private soldier to the Governor-General himself. Owing to this, and to the taxes which are ingeniously laid upon industry, and private enterprise of every kind, the country is not in a flourishing condition; the trade is poor; the expenses of freight, owing to the land-journeys which the cataracts cause, are very heavy, and the Soudan, in short, does not pay its expences. But it supplies slaves, and it is for this reason Mr. Baker supposes that it is maintained. However this may be, it is very certain that the Egyptian officials, like the Portuguese in Angola and the Mozambique, secretly favour the transmission of slaves, and throw obstacles in the way of English travellers whose accounts are likely to excite intervention, and the consequent suppression of an unlawful but lucrative branch of commerce. We are not disposed to join in the wild outcry against the European slave trade (now to be numbered among the institutions of the past) which has done so much for the civilisation of the New World, and which has raised the negro to a position of some political importance in the United States. But we cannot see how the Egyptian slave trade is likely to benefit humanity, and it is we think

scarcely worth while that a lawless banditti should be flung into Central Africa to burn villages, murder men, steal cattle, throw difficulties and dangers in the way of our explorers in order that boys, eunuchs, and black girls should be contributed to the harems of the East. Mr. Baker has not exaggerated when he attributes to the slave trade almost all those obstacles which, had he been an ordinary man, would have ruined his expedition. The natives of the country through which he had to pass, had been exasperated by continual razzias, and were opposed to all strangers; it was, therefore, a march through an enemy's country that he had before him, and for this he required an escort of armed men. Undesirous of employing as his body-guard the professional cut-throats of Khartoum, he applied to the Pasha of Egypt, through the British consul at Alexandria, for soldiers and boats. His request was refused. He then hired three vessels or *diahbiah*, and two large noggurs or sailing-barges to convey him to Gondokoro, the navigable limit of the Nile. He engaged forty-five armed men as escort, and forty sailors. He dressed his men in uniform, gave them double-barrelled guns, explained to them the objects of his expedition, informed them that no plunder would be permitted, and insisted upon their names being registered in the Divan. He set sail, and after many accidents arrived at Gondokoro on the second of February, 1863, after a voyage of about six weeks. Here he found himself in a perfect nest of slavers, the chief of whom his New England readers will be pleased to learn was the son of the American consul at Khartoum, in whose honour possibly it was that the slave-hunters, who arrived at that town, hoisted the American flag at their mast-heads.

In a very short time his forty thieves began to show that they were infected by the atmosphere of the place. They were very angry because he would not let them go cattle-stealing, which it seems is the correct thing to do at Gondokoro. There was a mutiny, and although peace was soon restored the ice had been broken, the white man had been braved, and Baker foresaw that his worst enemies would be the men whom he had taken as his guards. At this juncture Speke and Grant arrived from the interior, and for a moment Baker feared that the Nile sources had been "settled." But when he said to Speke, "Does not one leaf of the laurel remain for me?" he was informed that half of the garland might be won. Accordingly, he started for the interior, but soon his troubles began. Mohammed, an Arab, who had accompanied Speke and Grant, plotted against him. His men began to show signs of discontent; the camels and donkeys were allowed to stray, and the baggage was abandoned to the inroads of white ants. At last the flame burst forth, and Saat, a native boy

who remained faithful to him during the whole journey, informed him of a conspiracy, which had for its objects his murder, and the abandonment of his wife. By a splendid *coup de main* he disarmed fifteen of these wretches, the rest went off slaving, which had probably been their intention from the first. He tried to get others, but without success; he was looked upon as a spy. Just then a party of slave hunters started for the interior; they went off firing guns, and daring him to follow them. He did follow them, accompanied only by his wife, by Saat and Richarn (another native upon whom he could depend), and by his native porters. He soon sighted the watch-fires of the traders' party, and was challenged by the sentries, who threatened to fire on him if he remained near them. This sort of thing went on for some days. Before them lay Ellyria, which was guarded by a narrow mountain pass. He had reason to fear that the slavers would excite the natives against him, and that in the pass his party would be killed. He tried to reach it first, but was outmarched. The two parties came in contact with each other, and the slavers passed him with stern and sulky faces, not making their salaam. Mrs. Baker begged him to speak to Ibrahim, the leader of the expedition; his pride rebelled; and she herself spoke to him in Arabic as he passed by. He stopped, negotiations were commenced, presents were made to him, an alliance was formed. This was the turning-point of his enterprise—thanks to the tact and promptitude of his wife, the opportunity was seized, and the expedition saved. The difficulties with which he had to contend were yet immense; a deadly climate, treacherous companions, and the caprices of a barbarous king. But he was now fairly on his way. From Ellyria they passed to Latooka; on the 23rd of June they left it for the Obbo country, where they were kept prisoners by the rainy season for a long time. They now suffered from repeated attacks of fever; their quinine was exhausted; their horses and donkeys died. He bought and trained three oxen to take their place, and having at length left Obbo, they arrived, after a tedious journey through high grass, swollen streams and dense swamps, at the Somerset River or Victoria White Nile, on the 22nd January, 1864. He was now in Unyoro, and after many delays he was taken to Mrooli, the capital, and admitted into the presence of a brother of Kamrasi, the king, who personated that monarch with such success, that Mr. Baker did not discover the imposture till after his return from the lake, when Kamrasi summoned up courage to receive him.

The lake was reputed to be a long way off, and his porters hearing this ran away. Thus he was left entirely at the mercy of Kamrasi, who, in the person of his younger brother, visited him every day, and

asked for presents. Having got a great deal out of him, and having asked him for everything he had, including his pocket compass, his watch, his pet rifle, and his wife, this potentate at length gave him guides. On their way to the lake Mrs. Baker had a sun-stroke, and was insensible or light-headed during several days. At length, on the 14th of March, they arrived at the summit of a lofty hill, and saw beneath them the great lake glittering in the noon-day sun. To the south, an horizon like that of the sea; to the west, at the distance of fifty or sixty miles, blue mountains rising to the height of 7000 feet. They went down the steep narrow zigzag path which led to the lake. Mrs. Baker tottered from weakness as she walked, and supported herself upon his shoulder. At every twenty paces they stopped to rest. In two hours they reached the level plain at the foot of the cliff. They walked for a mile through some turf meadows, interspersed with trees till they came to the water's edge. There were waves rolling upon a white pebbly beach; they sat down and drank from the sources of the Nile.

We shall not relate the toils and the dangers through which they were forced to pass on their way back, but we must not omit to mention, that weak and weary as they were, they did not turn their steps homewards till they had explored the river which joins the two lakes. This exploit, which could not add to their fame, but which adds so much to the scientific value of their expedition, required perhaps more courage than the discovery of the lake itself.

In this journey, which occupied more than two years (his explorations altogether lasted over four), Mr. Baker had to contend with difficulties of an exceptional kind. Usually the explorer is able to make a fair start, to travel some distance before he is checked by the nostalgia of his men, or by the avarice of some native chieftain. But, as we have seen, his life at the very outset was continually in danger from the men whom he had armed, and it was only by remarkable perseverance that he escaped a failure like that of the unfortunate Miani, who was compelled to return after cutting his name on a tree in the middle of a swamp, and of whom few of our readers will have heard, although he explored to a greater distance than any one who had gone before him. In comparing Mr. Baker's journey with that of others, it must always be remembered that repeated failures had induced the Geographical Society to send their explorers from the eastern side of the coast, a plan first suggested, we believe, by Dr. Beke, and which reaped partial success in the expedition of Burton and Speke; complete success in that of Speke and Grant. In reaching equatorial Africa by the natural or southward route, Mr. Baker

has done that which most travellers and geographers believed to be impossible.

It would be painting the lily to praise Mrs. Baker's gallant conduct. Those only who have travelled in Africa, who have known what it is to sleep in a pestilent atmosphere, and to wake with a hard day's work before one, not strong and refreshed, but with a heavy head and aching bones ; to keep a constant guard over the muscles of the face, and to appear always cheerful however sad one's heart may be ; to resist the continual temptation of returning home ; to lie in the midst of danger in the deep darkness of the night, not daring to sleep, and listening for sounds which one dreads to hear ; or, worst of all, to find oneself at the mercy of a barbarian whom one cannot but despise, and yet who has it in his power to gratify the wish, to crown the labours of a life ; who can bestow immortal fame by granting one permission to visit a certain spot in his dominions, and then to be put off from day to day ; to know " what hell it is in suing long to bide ; " to be balanced every morning between hope and despair, and to be torn by the struggles between prudence and rage. Those only (and they are few) who have gone through all these trials of body and mind, will understand what a young and delicate woman has been able to achieve, and to doubt whether, in past or present time, one of her sex has displayed such a genius for endurance, or such unsubdued energy to the very last, as this heroine of the Nile.

Mr. Baker's book does not contain the immense stores of information which are to be found in Burton's *Lake Regions*, or in Livingstone's massive work—we mean, of course, his first. Fortune has favoured Mr. Baker with a succession of rapid incidents, from his first "situation" at Gondokoro, when he meets Speke and Grant, to the scene of poetical retribution at Khartoum, where, on his return, he discovers the chief of his mutineers, and has him well flogged, to the intense delight of all his readers. Thus his narrative, while bearing the undeniable stamp of truth, is equal in point of construction to a well-contrived work of art. Finding, therefore, these splendid materials beneath his hands, the author has wisely enough avoided long digressions, which, though interesting to the readers of the *Anthropological Review*, who we presume are searchers after solid facts, would have robbed the narrative of half its charms, by checking the action of the story. We do not doubt that Mr. Baker has made many observations upon the natives of Central Africa, which he may perhaps be induced to contribute to the public in another form. At the same time, we must not allow it to be supposed that these volumes are deficient of all information. We shall show that he has not only described with a vivid pen the manners and appearance of native tribes,

but also has made some remarks upon the character and capabilities of the Negro, which deserve the attention of every anthropologist.

The lowest form of the African he encountered appears to have been the Rytch, a tribe on the banks of the White Nile. He says:—

“The people of this tribe are mere apes, trusting entirely to the productions of nature for their subsistence; they will spend hours in digging out field-mice from their burrows, as we should for rabbits. They are the most pitiable set of savages that can be imagined; so emaciated that they have no visible posteriors; they look as though they had been planed off, and their long thin legs and arms give them a peculiar gnat-like appearance.”

The Latooka people he considers to be a branch of the great Galla tribe; they have woolly hair, but have no other Negro features. The same remark applies to the Obbo people; who, however, possess a different type of countenance, and whose language is distinct from that of Latooka. The people of Unyoro, who live under a despotic government, are decidedly superior to either of the above tribes. They wear a kind of bark-cloth, like many of the tribes of Western Africa. “The women were neatly dressed in short petticoats with a double skirt” (this is a refinement of apparel which we have not met with before); “many exposed the bosom, while others wore a piece of bark-cloth arranged as a plaid across the chest and shoulders. This cloth is the produce of a species of fig-tree, the bark of which is stripped off in large pieces, and then soaked in water and beaten with a mallet: in appearance it much resembles corduroy, and is the colour of tanned leather; the finer qualities are peculiarly soft to the touch, as though of woven cotton. Every garden is full of this species of tree, as their cultivation is necessary for the supply of clothing. When a man takes a wife, he plants a certain number of trees, that are to be the tailors of the expected family.”

They also are clever potters and blacksmiths, using the two-handled goat-skin bellows with the up and down movement, which is a contrivance peculiar, we believe, to Africa, but which certainly prevails all over that continent, from the Gaboon to Caffreland, and from the Senegal to the Nile. The natives of this part of Africa do not appear to be distinguished from those of the rest of the continent by any special traits. The custom of fattening young women for marriage, which was described by Speke, is also practised in Northern Guinea, and even in Tripoli, where it is carried to such an extent that girls of a bilious constitution are said to have died under the spoon. In Western Equatorial Africa nothing of the kind is done; but this is on account of the scarcity of food. We never saw but one fat person in Equatorial Africa; and he (a heavy dropsical-looking creature) was shewn to

us as a magnificent production of nature—as the model of what manly beauty ought to be. The taste for corpulence, therefore, may be considered universal throughout Africa.

We have been acquainted with palm-oil traders, and other gentlemen of humble condition and little refined taste, who having lived in Africa all their lives, have ended by admiring the beauty of the black girl, and have declared to us that they could detect no beauty in thin lips, in an attenuated nose, and in long lanky hair; and that an alabaster skin suggested to them no other idea than that of excessive sickliness or disease. In the same manner, there is a distinguished explorer, who has so long held communion with the African mind, that whatever judgment he may happen to possess has been completely turned upside down. In Dr. Livingstone's last work, that great traveller may be inspected standing on his head, declaring that black is white; that the Negro has a religion; and that, what is more, his religion is superior to Mohammedanism; that he goes into a corner to pray; that he only sacrifices plants; with various other remarks, which defy criticism by their complete alienation from the truth. Mr. Baker, having spent only four years in Africa, is content to look upon the Negro with a European eye, and does not appear to have any veneration for his character. Among most of the tribes in Western Africa is to be found a belief in a Good and Evil Principle, and some vague ideas of a future life. But, in describing the people of Unyoro, Mr. Baker says:—

“These people, although far superior to the tribes on the north of the Nile in general intelligence, had no idea of a Supreme Being, nor any object of worship; their faith resting upon a simple belief in magic, like that of the natives of Madi and Obbo.”

After this, it will be needless to bestow more time upon the native creed. Upon the character of these people, we will quote an extract from Mr. Baker's diary, which is the more valuable, as it describes what he *felt* at the time:—

“1863, 10th April, Latooka. I wish the black sympathisers in England could see Africa's inmost heart, as I do; much of their sympathy would subside. Human nature, viewed in its crude state, as pictured amongst African savages, is quite on a level with that of the brute, and not to be compared with the noble character of the dog. There is neither gratitude, pity, love, nor self-denial; no idea of duty; no religion; but covetousness, ingratitude, selfishness, and cruelty. All are thieves, idle, envious, and ready to plunder and enslave their weaker neighbours.”

Again he writes:—

“Savages can be ruled by two powers—‘force’ and ‘humbug’; accordingly these are the instruments made use of by those in autho-

city ; where the 'force' is wanting, 'humbug' is the weapon as a *pis aller*."

Under these circumstances, it is perhaps to the credit of the European missionaries that they have not succeeded better. We are not surprised to find that Mr. Baker expresses the same opinion on this subject that has been expressed by the chief travellers of the Anthropological Society. In describing Richarn, one of his native attendants, he writes :—

"He was brought up from boyhood at the Austrian mission, and he is a genuine specimen of the average results. He told me a few days ago that 'he is no longer a Christian.'"

Again :—

"The (Austrian) mission, having given up the White Nile as a total failure, Herr Morlang sold the whole village and mission station to Koorshid Aga this morning for 3000 piastres, £30 !"

And again :—

"It is a pitiable sight to witness the self-sacrifice that many noble men have made in these frightful countries, without any good results. Near to the grave of Baron Harnier, are those of several members of the mission, who have left their bones in this horrid land ; while not one convert has been made from the mission of St. Croix."

These observations are the more trustworthy, since Mr. Baker appears to be as earnest a detester of slavery, and a lover of Christianity, as Dr. Livingstone himself. But so deeply has Mr. Baker been impressed, by personal and painful experience, with the degradation of the Negro, that he seems almost inclined to believe that they are pre-Adamites, and properly belong to a period when the earth produced monsters. We will not criticise this theory, but applaud the modesty with which he says that the ethnology of Central Africa is "completely beyond my depth." It is only those who are smatterers upon the subject, who would venture to say otherwise. The fact is, that we know nothing of Africa. To understand a people, one must first understand their language, and one must live among them for some time, and one must also possess some talent for reading human nature. We need scarcely say that the comparative anthropology of Africa can only be studied, with some hope of obtaining positive results, when all the different tribes have been described by persons who are qualified for the task as stated above. As it is, immense nations have never seen the face of a white man ; others have been just passed through, and viewed merely on the surface. The day has not yet arrived for theory ; the anthropologist must content himself with collecting facts.

PROCEEDINGS OF THE PARIS ANTHROPOLOGICAL SOCIETY.*

WE have thus a relatively civilised people fighting with savages armed with stone weapons. More powerful than the autochthons, the Gaëls caused them to disappear, just as the Anglo-Saxons did with the red-skins of America and the blacks of Australia. In the British Islands they evidently massacred the autochthons, or allowed them to become extinct without intermixing with them, for in the Gaëlic idioms there is no trace of a single word which is not of Aryan origin; and there has never yet been a people found fused into another without leaving some traces, either in the traditions or the language. It must also be noticed that, in order that such a phenomenon should occur, it is necessary that the people absorbed should be less numerous, less civilised, or less condensed than the absorbing race. There are no examples in history of a numerous race accepting the language of a race inferior in number. No trace of an unknown idiom is to be found amongst the Gaëls and the Kimri, nor among the Slavonians, the Germans, and the Pelasgi. The Aryans have in Europe everywhere driven away or destroyed the autochthons; everywhere have the Aryans predominated without intermixture.

We thus see that the tendency of the Gaëls was to drive the primitive inhabitants to the south; for at a later period the Gaëlic tribes descended to the shores of the Mediterranean, and a Celtic expedition conquered Spain, then Iberia. The direction of the migration of the Gaëls is indicated by the route taken within historical times by the Kimris from the Black Sea to Gaul and England. We cannot but unite the Cimneri of the Latin, the *Κίμνροι* of the Greeks, inhabitants of the Crimea with the Kimris of Gaul. The Welsh triads say clearly that Hu-the-mighty came to England (Prydain) with his Kimris, who were natives of Deffroban, the land of summer, the east. A scholiast has even interpolated in the text: from the region of Constantinople. The Welsh traditions cannot be suspected, for even at this day the Welsh call themselves *Cymry*, and speak a Kimric idiom. The Kimris penetrated like a wedge through the Gaels by crossing the Rhine. On the continent, they drove the latter to the south of the Seine, and in England, on the contrary, they drove them north into Scotland. In fact, the Belgian confederation of Cæsar and the Armoricans seem Kimris, from the study of the proper names which have been pre-

* Continued from No. xiii, p. 207.

served, and I have already stated that the ancient Britons—the present Welsh—are Kimris.

Ammianus Marcellinus relates a Gaulish legend which corroborates the Welsh triad in respect of the Oriental origin of the Kimris. "The Druids," he writes, "relate that a portion of the peoples (of Gaul) were indigenous, but that another portion arrived from distant islands, countries beyond the Rhine, driven away by frequent wars and the overflow of the sea" (lib. xv). The route of the Kimris is further indicated by the names of the tribes who settled on the road. I have already spoken of the connection of the words Cimmeri and Kimris. Justin, speaking of Mithridates, says that this prince (who inhabited Asia and possessed the Crimea) sent ambassadors to the Cimbri, the Sarmatians and the Bastarnæ, to ask their help (lib. xxviii). There can be no question here of the Cimbri of Jutland; and when we recollect that the Latins had the custom to intercalate an euphonic B between M or R, we have reason to think that there existed a powerful Kimric tribe in Eastern Europe, adjoining the Sarmatians, who are considered Slavonians. Finally, the Bastarnæ settled on the banks of the lower Danube, passed in antiquity as Cimmerians or Kimris; thus the route of the Kimris towards the west is indicated with sufficient precision.

With regard to the parentage of the Kimris and the Gaëls, it is rendered evident by the study of the languages still spoken by the peoples of these two groups. Authorities are not wanting in favour of this theory. Niebuhr, in his *Kleine Schriften*, unites the Cimmerians, the Cimbri of Jutland, vanquished by Marius, the Belgians, and the Kimris of Great and Little Britain; whilst the ancients themselves, Posidonius, Diodorus, Strabo, unite with this group the Gaëls (*Γαλαται*) of the Alps and of Ireland. Strabo was well acquainted with the differences and resemblances of the Belgians of Cæsar (Kimris), and with the Celts of Cæsar (Gaëls). He says, "Their external aspect is that of the Gauls, and though they do not speak the same language, their idioms differ but little, and so do their laws and customs" (lib. iv).

We cannot, therefore, separate these two families and make two races of two peoples whom the facts and tradition show to have issued from the same stock. But, as in speaking of the whole races, we cannot use the words Gaël or Kimri, they have been denominated Celts. Let us, then, keep to the word Celt, always specifying what we mean by it, until a more appropriate term is found.

M. Perier congratulated M. Broca on having taken the initiative as regards the Celtic question. As he had for a long time been occupied with this question, he would naturally take part in the discussion.

For the present he would only say that he knew only of one sort of Celts, namely, the Celts of Cæsar; these were for him the only and true Celts. He would also just observe, that he did not by any means concur in the general opinion as to the Asiatic origin of Celts in the usual sense.

M. Broca said that the sole object he had in view in proposing the question regarding the Celt, was to induce the members when speaking of Celts clearly to state the signification they attach to that name, and at the same time to state the motives that induced them to adopt it. M. Girard de Rialle has responded to that appeal. He calls Celts all the Indo-Europeans of the first invasion who preceded the Pelasgic and Germanic peoples. He has shown that these Indo-Europeans, though unacquainted with iron, knew at least four metals when first they set foot in Europe. He adds that all the peoples he calls Celts spoke nearly allied languages, some of which are perpetuated in the dialects of Brittany, Ireland, Wales, and Scotland. . . . M. Girard de Rialle further says, that a collective name was required for all the peoples of Europe who possessed an Indo-European language and civilisation before the arrival of the Pelasgi and the Germans, and this led to the denomination Celts. He does not pretend that they already were so named at their arrival in Europe, but he does not tell us where they were first so named; nor does he think that all the peoples, nor most of them to whom he applies the name of Celts, had borne that name. It is not easily seen how M. de Rialle can avoid confusion when he wishes to distinguish the true Celts from other Indo-European peoples who were their contemporaries. . . . M. Girard de Rialle, it is true, says that all he calls Celts were of the same race. This may apply to language, which yet remains to be proved, but certainly not to blood and type, and that for two reasons: first, the remains in their graves belong at least to two different types as regards the crania; and secondly, their actual descendants present as great a diversity, since, in addition to the osteological character of the remains found in the graves, we find in the living representatives striking differences in colour and physiognomy. M. de Rialle does not ignore these divergent types, but he attributes them to ulterior intermixture; but as they already existed at the so-called Celtic epoch, it is clear that they must be due to intermixture before the historical period, which was indeed inevitable, seeing that Europe was already peopled before the arrival of Asiatics. M. Girard de Rialle admits the existence of autochthones of Europe. In order therefore to maintain the unity of the race he calls Celtic, he is obliged to assume that the Celts annihilated the primitive populations of Europe whenever they came in contact with them, a proposition

which he (M. Broca) had refuted on a previous occasion. "It is certain," says M. de Rialle, "that the autochthons have been destroyed by the Celts to the last man, since their languages have disappeared to the last word, and have been supplanted by the Indo-European languages."

To the last word! This seems rather a hazardous expression; for there are some geographical names and other words in the so-called Celtic languages which cannot be traced to the Indo-European languages. But what after all proves this fact? simply that a people may change its language, and that after successive changes the traces of the primitive language are ultimately lost. But philology is not the only source of information; archæology, craniology, and ethnology must also be consulted; and what do they prove?—that the bronze age was inaugurated in Denmark and Scandinavia by a dolichocephalic people, and in England by a brachycephalic people. The first fact has been demonstrated by Retzius and his successors, and the second by the researches made in Great Britain as contained in the memoir of Dr. John Thurnam. In France the question is unsettled; as unfortunately archæologists have for a long time neglected the preservation of crania from Celtic sepulchres. Still the museum, though poor in this respect, already contains sufficient proofs that, during the whole Celtic period, the population of France was composed of brachycephalic and dolichocephalic peoples. Thus, concluded M. Broca, vanishes the race unity of those who have inaugurated the bronze period, and whom M. de Rialle confounds under the name of Celts. And the study of the monuments of the stone period proves in addition that these two types existed already before the Celts; that in certain parts of Gaul they were already confounded in the same degree as later at the Celtic epoch; and that, finally, the arrival of the Indo-Europeans did not essentially modify the cephalic types. This is a decisive proof that the autochthons have not been annihilated, and that the foreigners have been fused with them in too small a number to produce a new type. If one of these races were to disappear in their intermixture it could not have been the autochthonic race, but the conquering race, which M. de Rialle calls Celts, who probably then were not yet Celts, for until better informed the name of Celts was first created on the soil of Gaul.

M. Lagneau observed, that in order to arrive at a proper definition of the denomination Celts, we should not only consult the ancient writers who confounded into one the various peoples of Gaul, but such as pointed out the differences subsisting between the Gaëls and the Celts. After citing various ancient authors who had done so, M. Lagneau continued, that from these historical documents it seems to

result that the Gaëls were related to the Cimbri and Kimmerians of the shores of the Pontus Euxinus. But the question remains, whether this parentage implicates the ethnical identity, or rather the ante-historical intermixture of two peoples of different races, who successively arrived into Northern Germany. . . . M. Girard de Rialle thinks that the pre-Celtic population had been entirely destroyed, as no traces of their language are found. This opinion is not shared by M. Pictet, who has, in the old Irish, detected the intermixture of foreign elements. In his *mémoire De l'Affinité des Langues Celtiques avec le Sanscrit*, Paris, 1837, this linguist says,—“I am far from pretending that everything in the Celtic idioms is of Indo-European origin. All these languages, and especially the Irish, present traces of intermixture with elements foreign to that family.” As regards history, apart from the passage in Festus Avienus, relative to the expulsion of the Ligures by the Celts in the vicinity of the Oestrymnides (Sorlingues) islands, we find that Dionysius Periegetes speaks of children of the Iberians, *παῖδες Ἰβήρων*, inhabiting the islands whence tin (*κασσιτέρος*) came (v. 561-564). Finally, according to Tacitus, the Silurians who formerly occupied Glamorgan, Monmouth, Brecknock, Hereford and Radnor, were, from their tawny complexion and crisp hair, looked upon as the descendants of the Iberians. (*Agricolæ Vita*, cap. xi, t. v, p. 338, du texte et trad. de Dureau de la Malle). It thus results from these historical documents, that the Ligures, generally allied to the Iberians, inhabited the north of Western Europe before the arrival of the Celts, and that other Iberian populations maintained themselves in the British islands down to the time of Tacitus, and probably a long time after. As to the influence of the Romans on the population of Gaul, whilst it has been considerable as regards political, social, and linguistic relations, it must have been but trifling from an ethnogenic standpoint; for, excepting in some localities, especially of Provence, the number of Romans in Gaul was very inconsiderable in proportion to the population.

M. Bertrand considered the extension given to the Celtic populations by M. de Rialle as greatly exaggerated. In consulting history we find that most ancient authors gave the name of Celts only to the Gauls, and though some, such as Appian, Pausanias, Dion Cassius extend the denomination Celts to the Germans, their works contain so many errors that they can scarcely be trusted in this respect. M. Bertrand is therefore of opinion that the Gauls are the only Celts, and he equally protests against the idea of the disappearance and destruction of the Gauls by the Romans.

M. Girard de Rialle in reply said, that whilst admitting the existence of an autochthonic race of the stone period, he still maintained

that they disappeared before the Aryans from the disappearance of their language, as no people can intermix with another without leaving some traces in the dialects of the absorbing people. What made him, moreover, incline to the hypothesis of the extermination of the people of the stone period by the Aryans, is the tendency of the latter to destroy or to expel all the races inferior to them. Now it is evident that the Gaelo-Kimric Aryans (not to use the word *Celt*, now being questioned) were in possession of a comparatively advanced civilisation at their arrival in Europe. The Aryans, moreover, must have been more numerous than the autochthons, otherwise the latter would have influenced the invaders, of which influence no trace can be found. Finally, the hypothesis that the autochthons received their civilisation and language from the Aryans is equally inadmissible. He therefore maintained his opinion that the Gaëlo-Kimris, at a later period called Gauls, Scotch, British, Irish, are all pure Aryans.

M. Broca asked permission to recur to the question of change of language and the inferences drawn from it by M. de Rialle, to whom the disappearance of a language appeared an act of pure violence, implicating the extermination of the people that spoke it. Such a conclusion might be acceptable if the new language suddenly displaced the old tongue; such sudden revolutions never occurred. The languages of conquered peoples became extinct but very gradually. Every new generation experiences a diminution in the number of such as remain faithful to the old language, until after centuries it becomes extinct. M. de Rialle seems to think that immediately after the conquest of Gaul by Cæsar the Celtic language was displaced by the Latin. This is an error; the Latin became the official language, whilst the people continued to speak Gaulic (*Celticè*) for several centuries. At the time of St. Jerome (fifth century) the Treviri of Northern Gaul continued to speak a language resembling that of the Galatæ settled in Asia Minor since 278 before our era, and other documents render it almost certain that the language of the ancient Celts maintained itself as a kind of *patois* in a portion of Gaul down to the seventh century. In such a gradual manner has the *langue d'oc* become a *patois* dialect; it daily loses ground, and in four generations, perhaps, it may altogether disappear, leaving some literary relics which will be known to the scholar, but forgotten by the descendants of those who speak it at present. . . . The peasant of Alsace gradually abandons his German *patois*; the peasant of Cornwall no longer understands Cornish, which was spoken in that part down to the eighteenth century. The opinion expressed by M. de Rialle concerning the extermination of the autochthons is contrary to all archæological, palæontological, and historical facts; reposing, as it does exclusively,

in the disappearance of a language. Observation, on the contrary, shows that languages become very gradually extinct, and that most peoples of Western Europe have several times changed their language whilst conserving their types. M. Broca concluded by saying, that M. de Rialle had not answered the question proposed in regard to the spot in Europe where the people called Celts first appeared. As for himself, he agreed with M. Bertrand and M. Perier, that the same Celts belonged to one of the peoples of Gaul; that all known Celts came from Gaul; that many Gaulish peoples did not bear the name of Celts; and that, in all probability, the name did not exist at the time the Indo-European conquerors arrived in Gaul. He had also asked whether there existed any proofs of peoples called Celts having occupied or invaded Denmark, Scandinavia, and the British islands. M. de Rialle has not answered this question. M. Perier remarked that Prichard alone maintained that there were no longer any Gauls in Gaul, an opinion which found no supporters.

The meeting then adjourned.

July 21, 1864.—*The true (genuine) Celts are the true (genuine) Gauls.* By M. PERIER.

M. Perier commenced by expressing his conviction that if there be any name of a people which has been singularly abused by modern and contemporary authors, it is surely the name of Celts. And when we consider to what obscurities and errors the different acceptations of this term have given rise in history and ethnography, it certainly is requisite further to sift this question He might as well state at the outset that he knew only of two kinds of Celts, *the true Celts* and *the false Celts*, the primitive Celts and the new Celts, the natives and the foreigners. The first are those of history proper, the second those of many historians and modern authors who have greatly complicated the Celtic question, as he would show. He would then treat of *type*, and conclude with some observations on the *origin* of the Celts.

1. *True Celts.* Whence comes the term Celts? What we know best is this; that according to Cæsar this name is derived from the language spoken in the country of the Celts, and that they called themselves by that name (Kelt, Gwelt, Galth) before they were called *Galli* by the Romans (*Bell. Gallic.*, lib. i, cap. 1). The last name differs but little from the former, except in pronunciation.

Strabo says that the ancients called Celts the inhabitants of the province Narbonne. "They were formerly called Celts (Κελταις)". He adds,—“And I presume that the Greeks were only induced to give to all the Gauls (Γαλάταις) the name Celts (Κελτοὺς) from the celebrity of the latter people; the vicinity of the Marseillaise may also have contributed to it (*Ed. Fr.* lib. iv, I II. p. 37).” According

to Applan Italy extends from the Ionian Sea to the Celts (Κελτῶν), whom the Romans call Γαλάτας. "Elsewhere," he says, "that the Celts (Κελτοὶ) are at present called (by the Greeks) Γαλάται, and (by the Romans) Γάλλοι" (Præf. § iii; *De Reb. Hesp.*, § 1). Pausanias also says, "that the Gauls or Galates (Γαλάται, come from the borders of Eridan) gave themselves the name Celts (Κελτοὶ), a name given to them also by other peoples" (lib. i, cap. 3).

Without entering into the etymology of the word Celt, it is seen that it was the original name of the ancient inhabitants of Gaul (*gallia*), then called *Galltacht*, country of the Galls. "Even at this day," says Freret, the Irish call France *Galla*, and the French *Galltha*." The Highlands of Scotland are also called *Gaidhealtacht*, *Gaeltacht*, according to M. Thierry.

But who were the Celtic people, and what were their limits? Here opinions begin to diverge. Some authors yet comprise under this name, either the people called Germans and those called Gauls, or the Kymris and the Galls, or Gauls properly so called.

It is not surprising that ancient authors had committed mistakes as regards the Celts, and the limits of their empire. From the insufficiency of geographical information, it could scarcely have been otherwise. It must, however, be noticed that, with the exception of a small number of Greek authors, the denomination Celts was only applied to the ancient inhabitants of Gaul He would not follow the authors who had given an exaggerated extension to the regions inhabited by the Celts, but would simply oppose to them the excellent dissertation of Schoepflin, which contains almost all that can be said on the Celts He would now return, in chronological order, to the principal authors who mention the Celts, and who generally give that name to the true Gauls, and the name Celtica to the territory of the Celts. After quoting various passages from a number of classical authors, and especially from Cæsar, whose language is a model of precision, and whose testimony is beyond suspicion, M. Perier thought that he had sufficiently established that most of the ancient authors exclusively understood by Celts, first the transalpine Gauls, and at a later period their brethren of cisalpine Gaul. Hence we may conclude that the true Celts were the ancient people in possession of Gaul, reduced by successive invasions, to occupy, at the time of the Romans, only a third of the country; that is to say, the territory comprised between the Garonne, the Marne, and the Seine, districts which their least mixed descendants occupy to this day. Having thus greatly narrowed the question by his definition of true Celts, he called *false Celts* all the peoples called Celts excepting the true Gauls. M. Perier then entered into a long disquisition to show how it came to pass that

this Celtic question, which is so clear when viewed from his standpoint, became enveloped in so much obscurity.

II. *Type of the Celts.* Before the recent progress of anthropology the search for the type of the Celts must have been attended with great difficulty. At present we know that this type exists, that despite the lapse of time and revolutions, it is, like all types, transmitted from generation to generation without any notable change. Now in France and in Belgium, countries formerly inhabited by the Celts and the Belgæ, we see the brown or the fair type peculiar to each of these peoples more or less predominate. The particular characters distinguishing the Celtic and Kymric types have for a long time been misunderstood. Now they are better known The fair complexioned peoples, whether called *Celtæ*, *Galli*, *Κελτοί*, or *Γαλάται*, were in reality Kimris (or Cimbri), Belgæ, or Teutons. Adventurous and warlike, these peoples, though associated with the Galls, had, chiefly by themselves, devastated distant countries; they burned Rome, ravaged Macedonia, despoiled the temple at Delphi, besieged Sparta, reigned in Galatia; they were constantly called Gauls, as coming from Gaul; hence the true Gauls were, like them, considered as fair complexioned. The error in names gave rise to error in ideas, which are still indulged in by modern writers. Direct observation has, however, shown that whilst the Kymris are people of high stature and fair complexioned, the Galls are, on the contrary, of medium stature, and more or less brown complexioned. In M. Perier's opinion, the remnants of the brown population in Wales, and in Brittany, are generally of Gallic origin, more or less modified by climate, customs, and language; they are Kymris only in name, just as the pretended fair Celts of Ireland and Scotland are said to be of Teutonic or Kymric origin. He believed, therefore, that all the Celtic or Gallic peoples were dark complexioned, and that the Kymric population is characterised by a fair complexion. Thus, the brown type of the ancient Gauls still exists in the countries formerly and at present inhabited by the Celts and their descendants. And what is singular, it is generally found, in contact with its ancient ally, a more or less light type. This is especially seen in some parts of Ireland and Scotland, in Wales and in Armorica. Every where the dark type seems to have been anterior to the fair type, which may have dispossessed the brown race, without changing its fundamental characters.

III. *Origin of the Celts.* Whosoever speaks of origin speaks of an impenetrable problem, which cannot be attacked without temerity. The way of conjecture alone remains open to us; but conjectures are not facts; there lies an abyss between them. As regards the origin of the Celtic people, what say the books? Everywhere we read that the

Celts are an Asiatic people, who, when they settled in Gaul, came from the East.

Centuries before modern authors traced the origin of the Gauls to the son of Japhet, Josephus the historian (*Antiq. Jud.*, lib. i, c. 6), said, "The peoples now called Galatæ, and formerly Gomarians, had Gomar as their ancestor." Thus, by the variation of *g* into *k*, the linguists found in the word Gomar the elements of *Κιμμέριοι* and Kymris. . . . At present, chiefly on linguistic grounds, the Celts (our true Celts) are included among the Indo-European nations; they are said to be Aryans who had at an unknown period separated from their primitive stock, and had, after numerous stoppages in the course of centuries, finally arrived at their destination in the West. All this is readily admitted, generally uncontested, and scarcely doubted. But science cannot live by simple affirmations and hypotheses, science requires proofs; and is it not permitted to us to ask where they are to be found? Is there any absolute proof existing that the Celtic is derived from the Aryan? Are the linguists all agreed on this point? Some assure us that the differences between the Semitic family of languages and the Indo-European absolutely prove different origins; whilst others assert that the points of contact between them are sufficiently numerous, that they might have issued from the same ethnic tree. Are they better agreed as regards the Celtic idioma, of which there exist but the *débris* in the north of Ireland and of Scotland, under the name of the *Erse* language; or as regards the Welsh and the Armoric, which are dialects of the Kymric branch? This latter branch is distinct from the former "by profound differences," says Alfred Maury, "which already existed at an ancient period." This is the opinion of most authors. M. Roget de Belloquet, on the contrary, maintains that the ancient language of the Gauls or Celts, in the sense he takes them, "is not divided into two idioms, the one corresponding with the Kymric and the other to the modern Gaelic, but that despite its local variations it is *one* idiom common to the Gauls of Belgium and Italy, as well as to the peoples of Britain and Gaul proper."

Again, whilst many linguists agree that the language of the Kymris and of the true Gauls came from the East, others of no mean authority think that the grammatical forms of the Celtic idioms have so much altered that it is difficult to attach them directly to the Indo-European languages" (Maury, 503). . . . It must then be admitted that linguists are far from agreed as regards the Celtic languages. Philology is no doubt an indispensable auxiliary in the study of anthropology, like its sister, history, from which it cannot be separated. Physiology rectifies the errors of both. Languages may change and pass away, but the anatomical and physiological characters, apart from modifications which can be appreciated, are fixed and remain.

It being thus evident, concluded M. Perier, that the Asiatic origin of the language of the Celts is not incontestably proved, we are not bound to consider our Celts or Galls to have come from the East ; and such, indeed, is also the opinion of several authors who are otherwise opposed to our views. According to their views, these ancient peoples came from the South. M. Roget thinks they are of African origin Since, then, it has not been demonstrated that the *true Celts* were of Asiatic origin, it is, until we are better informed, quite permissible to consider them as an autochthonic people of Western Europe.

[To be continued.]

Miscellanea Anthropologica.

COMPARATIVE ANTHROPOLOGY OF SCOTLAND.—The names by which the old British nations were known to the Romans strongly support the hypothesis that the ancient Eastern Britons were Gael rather than Cymry. The various forms of the root Feinn are found in many of the most important of them : *e. g.*, Trinobantes, *Treun Fhiannnta*, brave Feinn ; Simeni, *Sith Fhianna*, arrow Feinn ; Icenii, *Fioch Fhianna*, fierce Feinn ; Coritani, *Curaidhe Fhianna*, champions of the Feinn ; Dobuni, *Dubh Fhianna*, black Feinn, on the borders of the dark Silures ; Brigantes, *Brigh Fhiannnta*, valiant or dominant Feinn ; Ottadini, *Utadh Fhianna*, pushing or fighting Feinn ; Gadeni, *Gath Fhianna*, dart Feinn ; Novantæ, *Na Fianntai*, the Feinn. These nations extended from the mouth of the Thames to the mouth of the Clyde ; and in the names of places from the mouth of the Thames to the mouth of the Clyde also the same root may be traced : *e. g.*, Vinodocladia, Clausentium, Venta Belgarum, Venta Icenorum, Bannaventum, Venonium, Derventio, Vinovium, Vindomora, Brennenium, Valentia, Vanduaria. These are accompanied all along by *dun* and *mag*, names found wherever the Gael have settled. The Romans seems to have designated other nations by the native names for warriors or rulers ; Britanni and Britones, *Brigh daoine*, signify valiant or dominant men ; Vecturiones, *Feachd Fhirionnaich*, the men of the arms, as distinguished from the women in their train.—HECTOR MAC LEAN.

THE President of the Anthropological Society, Dr. James Hunt, and Mr. A. Higgins, Hon. Foreign Secretary, left London on the 21st ultimo, to proceed on a scientific tour in Norway, Sweden, Denmark, and Finland, with a view especially to the examination of the remains illustrative of anthropology and the allied sciences. Mr. Higgins will, we understand, stop some time in Stockholm to revise the proofs of the forthcoming edition of the works of Retzius.

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RACE IN RELIGION.*

THE PLACE OF POSITIVISM.

ANTHROPOLOGY is gradually widening its base and enlarging its arena. Its practice is approaching more nearly to its theory. As the science of man, nothing human is really foreign to it. Above all, no religion or philosophy can be regarded as altogether alien to its inquiries. Whether as effects or causes, the beliefs and opinions of mankind are worthy of all attention by the anthropological student. Here we may behold the accumulated results of the past, and, in a measure, the plastic forces of the present. Religions and philosophies are not accidents, but the normal product, the necessary consequence, of antecedent conditions. They were not made by art, but have grown in obedience to law. They come and they depart at their appointed season. They have their cycle of growth, splendour, and decay, like those great political empires, which constitute the more prominent features of history. In truth, they are empires of the mind, built up by the labours and sacrifices of many successive generations, and beneath whose shadow, in the day of their power, the mightiest are fain to seek refuge. And we live in an age, it may be remarked, peculiarly

* *A General View of Positivism.* Translated from the French of Auguste Comte, by J. H. Bridges. London: Trübner and Co.

The Catechism of Positive Religion. Translated from the French of Auguste Comte, by Richard Congreve. London: John Chapman.

The New Religion in its Attitude towards the Old; The Propagation of the Religion of Humanity. By Richard Congreve. London: John Chapman.

Auguste Comte and Positivism. By John Stuart Mill. London: Trübner and Co.

The Unity of Comte's Life and Doctrine. By J. H. Bridges. London: Trübner and Co.

favourable to an investigation of the laws which regulate their production and dissolution—an age of analysis and disintegration, when authority is dethroned and power is held in abeyance, and when, consequently, there is not only liberty to think, but also license to speak. In the middle ages, it would not have been possible to thoroughly criticise either the Catholic Church or the Aristotelian philosophy. But it is otherwise now, when the old Phœnix is in the fire, and the world re-echoes with her harmonious death-song; and we are at liberty to question everything, faith and philosophy not excepted.

There can be no doubt that forms of thought and modes of feeling are largely racial; that is, they originate in the specialities of mental constitution attaching to the different divisions of mankind. And an important part of our duty as anthropologists, is to study these specialities and trace their effects, as manifested in the creeds, codes, philosophy, literature, and art of various nations and successive ages. Their creed is the grandest outcome of a people. In it their deepest convictions and highest aspirations were once embodied. And if they be so no longer, if there be a school of thought outside of the church, higher and purer, larger and nobler in its teachings than anything within it, then is such a church infallibly doomed, however long its sentence may be delayed. Olympus was condemned in the very words with which Socrates taught his disciples; while Jupiter stood as a criminal at the bar over which Plato presided as a judge.

The interaction between faith and philosophy is much greater than is usually supposed. The *à priori* schoolmen flourished in conjunction with the Catholic church. Protestantism and the reign of induction came in together; the former being an appeal from authority to reason, in matters theological; and the latter being a similar appeal to facts, in the domain of science. In both departments there was the same descent from unity to multiplicity, from one church to many sects, and from a few principles to an indefinite number of "instances". In the largest view of the subject, it may perhaps be said that philosophy is the sphere of growth, religion of conservation; the intuitions of genius being ultimately sanctified as articles of faith.

To fully understand our present position, in reference either to faith or philosophy, it must be remembered that we live, not at the beginning or even in the middle, but obviously towards the end of a disintegrative era. What the ages of faith laboriously built up, the ages of doubt have assiduously pulled down. But the one process is as essentially temporary as the other. True analysis is ever but a preparation for synthesis; destruction is only transformation, the gate of death being simply a portal to the temple of life. Of neces-

sity, then, an age of re-edification awaits us; and that, too, in all probability, at a not immeasurably remote. Already, indeed, the signs of its coming advent are distinctly visible. The age of revolution is drawing to a close. Men are becoming weary of common task everywhere for a strong government, adequate to the suppression of aimless insurrection. While even the churches, forgetting their old *odium theologicum*, seem desirous to coalesce, as if conscious that it is becoming necessary to close up their disordered ranks, and present a united front to the common enemy.

Of this movement towards re-edification, Positivism, whether as a religion or a philosophy, was both a sign and a product. We may define it as a rather premature, though really grand and gigantic, attempt at the synthesis of universal knowledge; while Auguste Comte was a still more premature, and so utterly unsuccessful attempt at the performance of "the coming man". Both portents, however, of no mean significance; shadows whose substances are doubtless somewhere behind. Of Positivism in its relation to science, we do not here intend to speak at any length. Whatever may be thought of its "systematisation", we suppose all competent judges are of opinion that the sooner the positive mode of explaining phenomena supersedes the theological and metaphysical, the better. Here, then, Comte did real and appreciable work. But unfortunately, like many other great men, he lived rather too long. He outgrew his true vocation, and set himself up, not only as the hierophant, but also as the prophet and law-giver of a universal faith. This is a rather melancholy subject; but it concerns us, as anthropologists, more nearly than any other portion of his life and labours. It, moreover, involves ideas that are not peculiar to M. Comte, which he inherited from antecedent or adopted from coexistent systems, and which, therefore, have an interest for us quite independently of their relationship to Positivism.

The Positive religion commences with a dreadful solecism—it has no God! a circumference without a centre. What a beautiful illustration of race. Here is a French master mind turned prophet, and cannot find a God to worship; and so sets up select humanity, the *Grand Être*, in his place! Nor is this all; for in his ritual he ordains that prayers shall be said, not to humanity as the male, or as the male and female in combination, but specially to woman, as the mother, wife, and daughter, the incarnate past, present, and future of the race! Now, supposing that in place of an Indo-European Gaul, with his strong Pantheistic proclivities,—for the Positive religion is simply a phase of Pantheism,—a faith had been founded in our day, by a seer of purely Semitic type and descent, does any an-

thropologist doubt that a God would have been at the centre of it? And does anyone suppose that, in such a case, women or a woman would have been made an object of worship in it? And this godless, feminine faith, was expected by its polite expounder to prevail, not only over Aryanised Europe—moderately well prepared for it, we must admit, by the worship of the Virgin and the invocation of Saints—but it was also expected to satisfy the godward aspirations and sublime yearnings of the monotheistic Semites of Western Asia!

No doubt a new faith is coming, and that, too, over an unequalled geographical area. The vast amount of thought and knowledge, the accumulated product of modern civilisation, lying on the outside of our existing creed, indicates a growing necessity for the expansion of religious belief. We want a faith that will harmonise with the literature and science of modern times. We want a religion abreast with the age, and looking prophetically forward to the future, rather than retrospectively back into the past. We require a belief in harmony with our intellectual development, the product not simply of defunct wisdom, but also of living conviction. And this faith, once originated and established among the leading nations of the world, must have a geographical range previously unexampled. The railway and the steamboat utterly forbid the perpetuation of existing territorial limitations in language and creed. The interaction of nations and races increases every day, and must ultimately sweep down many of the barriers that formerly kept even allied peoples in a state of isolation from each other. But then, one of the conditions on which this faith can be accepted over the ever expanding area of modern civilisation, and so effect the gradual, if not rapid, displacement of existing creeds is, that it shall in no department fall short of the highest tidemark of any of its predecessors. It must have no Polytheism, or Tritheism, or Pantheism, or Atheism to disgust its Semitic votaries; while it must be expansive, receptive, æsthetic, and philosophic enough to satisfy the most intellectual requirements of its Indo-European converts. And it must be all this to prove even a Caucasian faith, to enlist the sympathies of humanity, from the Ganges to the Thames. But even granting it were all this, does any anthropologist suppose it could prevail over so large an area and among so many different types, without extensive local adaptations and modifications, more especially in its ritual, to accommodate it to the wants and habitudes, the taste and feelings, of its racially varied converts? And what shall we say, in such a consideration, to the Mongolic nations of Eastern Asia, the great upholders of existing Buddhism, or the African Negroes with their grovelling Fetish worship; or, we may add, the outstanding savages of any continent?

But, quite independently of racial considerations, the religious system of Auguste Comte clearly demonstrates that, whatever else he may have studied, he most assuredly had not mastered the laws which regulate the generation and succession of creeds. He did not build on the old foundations. A fatal error. Why, there is no example on record of a faith emerging into great and enduring power, except as the lineal successor of some predecessor. Judaism built on the patriarchal theology, and Christianity rests on Judaic foundations, while the faith of Islam accepts and professes to supplement all three. Jupiter was not supposed to deny the divinity of Saturn; he only superseded him. This subject of *growth* in the progress of society is, it would seem, but very imperfectly understood; and hence the many absurd and abortive attempts at reconstruction, whether in the religious, political, or social sphere, of which these latter generations have been the witness. And yet the experience of all time demonstrates that religion and politics cannot be fundamentally and yet suddenly remodelled. Society, whether as a whole or in any of its more important departments, is much too complex, and depends on too many varied forces for its movement, to permit of its being taken to pieces and put together again, at the pleasure of any merely human designer. It is, in truth, a vast moral organism, at a certain stage of development; and can no more be made or remade than a tree or an animal. It grows as we have said, and it may be added, after the true organic fashion, by a constant assimilation of appropriate elements from without; and consequently all that any individual can hope to accomplish, is but to contribute his quota of thought or effort to the sum total of results. But few ardent reformers are prepared to submit to this. They have not, it is to be feared, sufficient faith in the laws of nature, for this wise yet lowly dependance upon their efficient operation. They cannot quietly let things take their course. They are too impatient to wait for results; they want to force them. They place too much confidence in art—their own art—wherewith they foolishly hope to supersede the grander processes, and forestall the slower results of nature.

These remarks do not apply especially to Auguste Comte. They are yet more applicable to St. Simon, Fourier, Owen, and the leaders of socialism and communism generally. Neither did Comte fall into the most grievous of all errors, which is the endeavour to refound society without religion. He clearly saw that a creed and a ritual are necessities; and he simply failed in providing such as would satisfy the higher requirements of humanity. The real interest of Positivism, however, to an anthropologist, is not its relation to Auguste Comte as an individual, but to the age in which he lived, and of

whose tendencies he regarded himself as a befitting exponent. To fully understand the place of Positivism, to know its vocation in the world, nay to clearly perceive that it had a recognisable place and vocation at all, we must comprehend the real character and grander inspiration of the age in which it appeared, and this implies a historical survey of considerable extent.

Nothing is more clear than the continuity of the current of civilisation; it has had its ebbs and its flows, its high tide and its low tide, but it has remained throughout an unbroken stream. At this hour, not only the mechanical arts, but the literature, philosophy and religion of the most advanced nations, are indebted to elements, inherited from Etruscan, Egyptian, Assyrian and Hindoo systems of culture that meet us at the dawn of authentic history. The rise and fall of empires, the growth and decay of faiths, are not to be viewed in the light of exceptional catastrophes. There is nothing abnormal in such events; they are, on the contrary, the normal phenomena necessarily attendant on the process of progression.

History has obviously lost some of its earlier chapters. Not to mention the Etruscan and Cyclopean civilisation of Europe, it is obvious that a mighty drama was transacted in the East, of which we have but very imperfect records. The great Aryan emigration, that carried a European race to the Ganges, or bore an Asian race to the Thames, as we may be pleased to interpret the yet doubtful oracles of philology and tradition, what do we really know of it, except the fact of its occurrence, demonstrated by the lingual and racial effects which it has left for our investigation? And that great and almost prehistoric cycle of Semitic civilisation, whereof Egyptian, Phœnician, Assyrian, Babylonian and Jewish culture were the several parts, how little do we know of its origin and splendour! Nay, how imperfect is our acquaintance even with its decline! What was its mundane function? What mission did it discharge to humanity as a whole? What was its transmitted effect upon classic civilisation? and how, through Judaism more especially, has it directly influenced the belief, and through it the philosophy, the literature and the entire moral and intellectual life of modern Europe? It is by such questions that we discover, if not the extent of our ignorance, at least the very narrow limitations of our knowledge.

Perhaps it may suffice us for the present to observe, that a grand process of edification went on, in that remote age and in that far eastern land, of which Judaism may be regarded as the great theological result, the highest form in which its theosophy finally crystallised into enduring shape, for transmission to posterity. And while religion was being thus duly cultured by the Semites, philosophy was

proportionately developed by the Aryans, who, as Persians, ultimately emerged into political supremacy on the ruins of Semitic power. Altogether, as we have observed, there was obviously a grand process of spiritual as well as political edification transacted in that remote age, of which we have inherited the results, though we are but imperfectly acquainted with the processes by which they were produced. To recur to our former figure, it was a great flood tide, that has left us, among other things, the Pyramids and the ruins of Thebes, the hieroglyphics and the cuneiform inscriptions, the Veda, the Avesta, and the Pentateuch.

But these great periods of edification are always followed by others of almost proportionate dilapidation, synthesis being supplemented by analysis, as life is followed by death, and day by night in the cyclical revolutions of nature. A time came when Asiatic thought-forms were to be subjected to the rather destructive process of European criticism. The earlier Ionian philosophy and the Pythagorean system of Magna Græcia show us the advancing waves of the great eastern inundation, as it impinged upon the classic races of the west. Under the reign of the Sophists antiquity was treated with some respect, but the Socratic method was fatal to a blind reverence, especially among a people so naturally analytical as the Greeks. Platonism was oriental theosophy robed in the intellectual vestments of philosophy. It was eastern faith, after its first Hellenian baptism. Under the Stagyrte, the European mind, as contradistinguished from the Asiatic, emerged into the full force of its strongly marked individuality, and that age of criticism was formally inaugurated which, commencing with Socrates, ended in the downfall of Olympus, and we may say the subversion of classic civilisation. Ere Alaric could enter Rome, it was necessary, not only that Cæsar should be conquered, but that Jove should be dethroned. We quite misunderstand matters when we think that everything was due to "the northern barbarians." The collapse of classic civilisation was entire, and implied the subsidence not merely of political power but also of traditional faith.

It is doubtful if we yet fully understand what "the decline and fall of the Roman empire" really meant. It was more than the fall of merely classic civilisation. It was the collapse of the ancient imperial system altogether, so that the world has never since seen its repetition, and never will again see it in its integrity, as a manifestation of purely physical force. The next great empire must be moral, for empire, as we hope hereafter to show, is inevitably coming, the empire of the west, the preparation for which is the existing diffusion of Semitic faith, over the entire area of Greek and Roman civilisation, under the rival yet allied standards of the cross and the crescent.

Thus, then, we are landed at the dawn of another period of spiritual synthesis, eventuating in the double pontificate of the Christian popes and Mohammedan caliphs.

To fully understand the rise of this duplex spiritual power upon the ruins of the political edifice which had preceded it, we should remember that Rome was the summation of the ancient imperial system, and the grandest instance of political synthesis upon record. In her the merely military phase of empire culminated, and in doing so became partially moral, as we see by her code, that enduring evidence of her wisdom and experience in legislation. The truly moral or rather spiritual phase of the Roman empire was however manifested in the papacy and the caliphate, and in the former more purely than the latter.

"The ages of faith" were a period of edification, during which the Catholic church sedulously endeavoured to build up the waste places of the earth. Sustained by a sublime inspiration, she laboured to reduce chaotic multiplicity and confusion to the order and beauty of a unitary creation. She sought to make one creed—her own; one language—the Latin; and one philosophy—the Aristotelian; or rather that of the schools, which somewhat inappropriately bore this name,—suffice for all the higher requirements of humanity. We should not blame her for this. It was a necessity of the age. It was simply the flood tide, that has left us the splendour of our cathedrals and the ruins of our abbeys, as its memorial wavemark on the sands of time. And it is a somewhat noteworthy coincidence that, as architecture and statuary attained most nearly to perfection during the declining ages of classic heathenism as a faith, when the elements of thought, that in their union with Judaism afterwards crystallised into Christianity, were in the process of elaboration, so again architecture and painting attained to their culmination in the Catholic church just previous to the Reformation, while the principles that afterwards eventuated in Protestantism were in a state of preparatory fermentation. These things are not accidents. They are obviously the product of a law, whose operation we should investigate, in the hope of attaining to an intelligible solution of its phenomena.

Is not this efflorescence of the fine arts towards the termination of a faith a phenomenon akin to the corresponding development of literature and philosophy? The Greek intellect not only produced Phidias and Praxiteles, but also Æschylus and Plato, as rays of that sunset splendour wherewith the Olympian faith bid the world its grand adieu. So also the Catholic church not only gave us Raphael and Michael Angelo and Leonardo da Vinci, but also Dante and Tasso and Ariosto, to say nothing of Cervantes and other transalpine stars of

that galaxy, that made "the revival of learning," using that phrase in its widest chronological import, so deservedly illustrious. These things are a part of that general development and culmination of intellect, which is not only an accompanying circumstance, but also a producing cause of the supercession of the old and outworn by the new and regenerated faith.

As the ebb infallibly follows the flood tide, so does an age of analysis succeed one of synthesis. Mediæval orthodoxy was followed by modern Protestantism, with its adjuncts and accompaniments, the inductive philosophy and vernacular literature. The one church was split up into many sects, the one language reappeared in many dialects. It was the decline, and will lead eventually to the fall of the spiritual Roman empire. It is a most mistaken idea that this process of analysis is confined to religion. It extends to politics, philosophy, letters and life. The schoolmaster feels it at his desk. The father finds it in the family. It is *authority*, in the abstract, that is dethroned, and the pope and the king experience it in common with all other central powers. It promises to be the most stupendous ebb on record. As material Rome was the greatest political edifice ever reared, and its fall the greatest political subsidence of which history is cognisant, so spiritual Rome was the grandest ecclesiastical structure that the human mind ever devised, and its subsidence must be proportionate to its splendour. As in material Rome, the old empire of force culminated; as it was the grand summation of ancient civilisation, so in spiritual Rome, the old empire of superstition attained to its maximum of power and influence, and in it the hierarchical organisation of the ancient priesthoods arrived at culmination.

These are facts which concern us as anthropologists. The empires and the hierarchies which preceded Rome were oriental in character. They wanted that sustained force and commanding intellectual power which can only be obtained from the ethnic basis of a European population. Babylon never attained to the far-seeing policy or the legislative wisdom of political Rome, nor were her magi or even those of Egypt comparable either for polemical astuteness or for forecasting and absolutely mundane ambition, to the surpliced priests and tonsured monks, that obey the tiara'd pontiff on the Tiber. We have seen what the Classic race could do for political and spiritual empire. The world has yet to see what their successors still farther west will accomplish, with yet greater means and fully equal capacity.

We have said that the present age of analysis promises to be the most thorough and searching upon record. Never before was the critical examination of faith and tradition so daring and exhaustive. Never before was scholarly scepticism so well equipped with the means

for doing successful battle with popular belief. Never before did science occupy such lofty vantage-ground as compared with revelation. And never before were the "masses" so open to the direct action of all these disintegrative influences. The old theology is obviously doomed. It simply waits for the execution of its sentence. Nor is the political horizon less marked by the portents of instability. Here, too, as in theology, the movement dates far beyond the existing generation. The English wars of the Commonwealth indicate the extension of excitement from the theological to the political sphere, this transference commencing perhaps with the thirty years' war in Germany, and culminating in the French Revolution. But the movement is obviously not going to stop at the political, for it is now penetrating the social sphere, and making claims to which science cannot but demur. Democracy has long demanded political equality for all the citizens of one homogeneous community, but we now also hear of the political and social equality of diverse races, based on the assertion, or rather the gratuitous assumption of organic and intellectual equality among all the strikingly characterised varieties of mankind. Of these stupendous claims, the late civil war in America was a result. Having arrived at Negro suffrage and miscegenation, we must assuredly be at "the beginning of the end"—at least in *theory*. Fortunately for the world there is moral as well as physical friction, and abstract ideas are always brought up a long way short of their hypothetical range. Resistance ultimately becomes equal to impulse, and the impetuous strangers having expended their force, sink into respectable quiescence, like their neighbours and predecessors.

To thoroughly understand a man, we must know something of the age in which he lived. It is more than the framework to the picture. In a certain sense, it is the mould to the metal. Do as he may he cannot wholly escape its influences. The Roman authors of the imperial age differ not merely in style but in tone from those formed under the republic; and among ourselves, the men of the seventeenth, eighteenth, and nineteenth centuries are easily distinguishable. They were obviously reared in different schools, and in this connection it is therefore perhaps of some importance to observe that Auguste Comte was born in 1798, amidst the seething cauldron of the French revolution. Civil commotion and foreign war, constituted the pabulum of his childhood; from his royalist parents he must have learned their conservative version of the reign of terror. While the immediate thunderpeals of Marengo and Wagram, Jena and Austerlitz reverberated through the dawning consciousness of his early childhood, the retreat from Russia, the retirement to Elba, and the final defeat at

Waterloo, constituted the experiences of his youth. Such were his first impressions of public life, of the outer world of politics. He was reared in imperial France, amidst the smoke of battle-fields, and saw, while yet a boy, the fall of empire and the restoration of monarchy; nor were his surroundings as a student in anywise more congenial. He beheld an established religion in which the great majority disbelieved, enforcing a code of morals that few practised, and, as a necessary accompaniment of this, he found a government that was unstable, and a social fabric that was rotten. He was trained in a philosophy devoid of depth, and in a science whose facts were outgrowing its principles; and, lastly, he became familiar with a literature that was purposeless and a drama that was vicious. Poor M. Comte, with his earnest and systematic, and perhaps we may add, fundamentally devotional mind, it is no wonder that he felt ill at ease in such an atmosphere. To his pure soul Paris must have seemed a Circean sty, reeking with filth and abomination, beneath the thin disguise of a vicious, because effete civilisation. To such a thinker, so circumstanced, the conclusion was inevitable, that the world wanted regeneration and reorganisation. He saw, with the penetrating and intuitive glance of genius, that in all the higher departments of thought and action, the work of destruction had been effectually accomplished; that we were drawing towards the end of an era, the close of a dispensation, and that the only true duty remaining to be accomplished was that of a master builder, and so, with a confidence no less rare than admirable, he offered himself as the befitting restorer, the competent architect of a ruined but recoverable world.

Ere we can duly estimate either the success or the failure of M. Comte in this stupendous undertaking, we must understand what it is which the world really wants. It has been already shown that we are nearly at the termination of an age of analysis, and that consequently a period of synthesis must be closely awaiting us. Hence, then, we may clearly perceive, that M. Comte was not an accident, but on the contrary a normal, and in a sense, necessary product of the age. He and his system were wanted—they, or something better. What, then, is it which is wanted? What are the present legitimate demands of civilisation in reference, primarily, to religion—for it is principally under this aspect that we propose to consider the subject of Positivism on the present occasion; the aspect, we may observe, under which it was regarded as of most importance, both by its founder and by some of his most distinguished disciples.

The distinctive feature of the religious world from Britain to Japan is present effeteness, combined with the strong expectancy of almost

immediate regeneration. Everywhere the signs of utter exhaustion are apparent; more especially is this the case throughout the East. Brahmanism and Buddhism are gone, and the faith of Islam is going; and the hopelessness of these Oriental creeds arises from the fact that they are socially and intellectually, as well as religiously effete. But it is otherwise with Christendom. Here we are at the very focus of mundane activity and human progression. The Christian peoples are the hope of the world, and somewhere within their area, therefore, must we expect the process of mundane regeneration to commence. What then is our condition, and what are our wants as a result of it? The ethnic speciality of the faith of Christendom consists in the fact that it is largely imported, that it is not, except by extensive modification, a normal product of the Aryan, or, shall we say, Indo-European branch of the Caucasian stock. It is Semitic in its roots. It is a part of that invasion, by which the Classic and Celtic races were overwhelmed in the hour of their effeteness. Despite its many modifications it is still largely alien to the racial thought forms of European peoples. It is so from the preponderance of its Semitic over its Aryan elements. Let us explain our meaning more definitely.

The Semitic races are predominantly moral in their mental constitution, while the Indo-Europeans are as predominantly intellectual. Now, it is because existent Christianity does not make adequate provision for this latter attribute; that it is failing in the present age of racial reemergence. It has also another source of weakness, more especially in relation to Europe; it is too Oriental in its estimate of women. Under the Mosaic system woman found no recognised place in the temple; and Christianity is still so far Judaic in its essential character, that she cannot serve at the altar. We hear many polite euphuisms about what Christianity has done for women, but the historic fact remains, that under Classic, Celtic and Teutonic heathenism, she was a priestess and a physician, she is now a tract-distributor and a nurse. There is not, we believe, a church in Christendom, that permits her to distribute the sacred elements. Even the most daring sectaries shrink from so dire a profanation of things holy. This cannot continue. It is contrary to the genius of the European, and more especially of the Celtic and Teutonic mind, and must give place eventually to a nobler estimate of the place and prerogatives of womanhood in the spiritual scheme of things. The deficiency of Christianity, then, as a world religion,—if such a thing, except in a very modified sense, be virtually possible,—arises from its want of due adaptation to the higher intellectual proclivities of the European mind. It wants farther modification and expansion. It is

in the process of undergoing this. It became æsthetic under the church of Rome; it is becoming, or rather preparing to become, literary and scientific, under the church of the future.

Religion is immortal: its manifestations may be Protean, but its essence is indestructible. It is the grandest product of the human mind, and the mightiest power that society has ever developed. Notwithstanding the vast changes to which it has been subjected, both in doctrine and ritual, its existence has been continuous, and its growth probably uninterrupted. The great theological revolutions which loom out upon us through tradition, and which at a later period constitute some of the most important subject matter of history, were not casual incidents, but orderly phenomena, necessarily developed in a certain sequence, by the interaction of races and the general progress of humanity. And we are now, from both causes, approaching another period of crisis. The European peoples, or nationalities, as they are sometimes termed, are, anthropologically speaking, emerging from the ruder effects of their ethnic baptism, at the period of the Gothic conquest. The alien elements then introduced, having produced their due result of invigoration, are scaling off, and Greek and Italian, Celt and Iberian, are reappearing in their olden features, with simply the normal growth of an ethnic era super-added. But is there to be no other scaling off? Are not the alien ideas, like the alien races then introduced, a foreign product, to be absorbed and assimilated, or if not susceptible of this process, to be expelled? Does not an entire reemergence of the European peoples imply this? Is it within the limits of ethnic possibility, that a peculiarly vigorous type, both mentally and physically, like the European in all its varieties, should submit to an indefinite prolongation of moral domination on the part of another, if not inferior type, like that of the Semites? And yet this is exactly what would be implied by the permanence of our existing forms of thought in matters of faith and religious conviction.

Such a supposition as that alluded to at the close of the foregoing paragraph, however probable it may seem to the theologian, is, it need scarcely be said, utterly untenable on anthropological grounds. In truth, the doctrinal modification which Christianity has already undergone, and by which it is distinguished from both Judaism and the faith of Islam, demonstrates that a purely Semitic faith could not prevail over an Aryan area, even in its hour of ethnic collapse. Neither, on the other hand, will the laws of progression allow us to suppose that Europe, having once received and assimilated so much of the higher elements of Semitism as are involved in Christianity, will again finally surrender them for an inferior creed. She may,

and no doubt will, superadd her own intellectual elements to them, but will never again yield up those grander veracities, which by prolonged adoption have become, in a sense, her own.

What, then, is the essential character of that faith, to which, from a variety of causes, racial, political, theological and philosophical, Europe is steadily and irresistibly tending?—And we reply, a religion as grandly monotheistic as that of the noblest of the Semites, as purely moral and as sweetly beneficent as the finest phase of even theoretic Christianity, together with an intellectual element superadded of which both are more or less devoid. This is simply saying in effect, that from the biparentage of ancient faith and modern civilisation, we shall obtain an offspring superior to either; it is the world-old process that was effected in the conjunction of patriarchal faith with Egyptian wisdom, and in the subsequent union of Judaic theology with Hellenic philosophy; it does not imply the destruction of Christianity, but its renovation—not its death, but its resurrection. It is the foremost shoot of the mystic Ygdrasil, and although of necessity the last year's shoot, and now perchance of somewhat sapless and winterly aspect, must nevertheless prove the more immediate parent of the present year's growth. To suppose that it can be put aside and ignored as of no account, is simply absurd. To use another simile, it is "the old foundation," compared with which every other is of sand, nor will any true master builder reject or despise it, in his attempted edification of the future.

Granting, then, the truth of our conclusion, that Europe must ultimately produce a faith more suited to her spiritual necessities than existent Christianity, the question remains, on which of her races will this great mission finally devolve? and we reply, not on the Classic. Their force has been already expended in the modification of Christianity, whose doctrine and ritual, in so far as they depart from their Judaic originals, are, the former Greek and the latter Roman, or if the term be preferred, Italic. Not the Teutonic. They are not sufficiently constructive. They are doing their appointed work in the critical analysis of the existing faith. It is their business to remove the rubbish of error, not to lay the foundations of truth or rear the superstructure of beauty. It is almost needless to mention the Slavons; they have never created anything, being simply receptive of the thought forms of higher types. There remain, then, only the Teutonised Celts of the West, now apparently in the process of emergence into mundane supremacy; and to fully understand their position in relation either to the religion or the empire of the future, we must take another short historical survey.

In accordance with those comparatively recent annals which con-

stitute written history, we have been accustomed to regard Asia as not only the cradle of mankind, but also as the aboriginal seat of civilisation. Nor is this matter for astonishment. During the last four or five thousand years empire has been marching north-westwards. It came out of the east, and in its train has followed that religion, which now prevails over the whole western world. Hence all our more immediate experiences point to an oriental origin of things. But anthropology, archæology, and philology, as they carry us down to profounder depths, do not altogether confirm this conclusion. In the first place, we have ample present evidence that Europe is the highest Ethnic area in the world. Its racial types are the most vigorous both in body and mind, and indeed it is not too much to say that the West, and not the East, of the old world, seems to be the especial seat of, at least, the Aryan division of the Caucasian race; while recent philological and archæological investigations seem to indicate that an Allophylian, or Semimongolian, type, with an agglutinated language, preceded the Semites, even on the banks of the Euphrates and the Tigris. Thus, then, it would appear that the Turanian, and not the Caucasian, is the especially Asian type of humanity; or, at farthest, that the latter is confined to the western and Mediterranean border of the continent. Should this be confirmed, the claims of Asia as the aboriginal fountain of any higher religion or philosophy must be regarded as more than questionable.

True archæology, as contradistinguished from dilettante anti-quarianism, is yet too much in its infancy for confidently basing our conclusions as to the condition of prehistoric man on its revelations. But it is an important fact in connection with these speculations, that on the primitive Celtic area of the north-west we find the dawn of architecture in the monoliths, cromlechs, and so-called druidical remains of Britain and France; while in the Cyclopean ruins of Italy and Greece we seem to trace the successive stages of progress in art, from the unhewn block, innocent of tool, up to the still vast but perfect parallelogram, affording ample evidence not merely of the mechanical, but also the masonic, skill of the mighty builders who prevailed to place these gigantic masses in position. It would, perhaps, be rather premature to assert positively that the pyramids of Egypt are recent as compared with the walls of Tiryas and Mycenæ; but it is not too much to say that the general current of archæological evidence is flowing in that direction.

Again, true philology, as contradistinguished from mere verbal pedantry, is too recent and imperfect to prove more than merely suggestive in inquiries like the present. But the great inflectional languages of the early Aryans are clearly indicative of a prehistoric

antiquity of yet unknown duration, when these mighty forms of ancient speech were being slowly built up into the grandeur and compression which we find in the Sanscrit and its allied tongues. We know how long it has taken to thoroughly break down these glorious modes of utterance into the baby-talk of India and modern Europe, and is it to be supposed that it took a shorter time to build them up? And as to the primitive area of these Aryan peoples, the true Ethnic seat of the race, by what satisfactory evidence have we transferred this from thoroughly Aryanised Europe into the heart of Turanian and Semitic Asia? Is not this simply a worthless corollary from the foregone conclusion of an Asian origin for all things, itself the baseless tradition of the Semitic tribes of Palestine?

It is not, then, too much to assert that the tendency of modern inquiry is to indicate the probability of a great prehistoric cycle of civilisation and progress, which, commencing in the north-west, moved south-east till it reached the Ganges. The movement which constitutes history proper, being the exact reverse of this, that is, the return wave from the south-east to the north-west; now it is very obvious, concentrating with especial force upon Britain, the geographical terminus, where it must culminate, preparatory to the resumption of its south-eastern march, during the ages of a yet unrevealed, though we have reason to believe stupendous future of classic and oriental restoration. These we grant are rather wild speculations, as whatever takes in so large a sweep of time and space must necessarily be, in the present imperfect state of our information. But we have thrown out these hints to indicate the possible dignity of the Celtic area from a historical standpoint, as being, in a sense, the source and terminus of these great oscillations that carry empire and civilisation in their train.

As an additional indication of the Ethnic grade of the Celtic area, more especially in relation to religion, let us compare the geographical divisions of Asia with those of Europe. That there is a certain racial and moral relationship between the two continents, in virtue of which the areas of the one correspond, in a measure, to those of the other, however inexplicable the fact may be in the present imperfect state of our information, will scarcely admit of a doubt. Thus, Mongolia corresponds to Slavonia, Tartary to Germany, India to Italy, Arabia to Spain, and Persia to France. But if so, then where is the correlated European area of Syria, and perhaps Asia Minor? and we answer unhesitatingly, the British Isles. Judging, then, by the indications afforded through this line of representative affinities, M. Comte might have been the Zoroaster, but scarcely the Mohammed or the Jesus of the world's theological future. It would

not, however, be wise to lay too much stress on conclusions derived from data as yet so imperfectly understood, and we will, therefore, conclude this portion of the subject by simply remarking that there is an obvious Ethnic relationship between the Semites of western Asia and the Celts of western Europe, and that if the latter continent is ever destined to complete the historic epicycle of the former, by the development of a mundane religion, M. Comte seems to have come of the race of the prophets!

But prophets hitherto have always been of a rather peculiar type of character. All history testifies to the fact, that successful architects in the spiritual sphere ever laid claim to preternatural power and supernatural illumination. They taught not through reason, but with authority, and fortified the demand of unquestioning obedience to their dictates by speaking as the delegates of Deity. They were healers and wonderworkers, and utterers of dark and vaticinatory sayings. Perhaps M. Comte and his disciples may say that the age for such things is past, to which we reply, then so also is the age for the founding of a religion, as that term has been heretofore understood and exemplified. The truth seems to be that this worthy man confounded the philosopher and the prophet, and because he had some rightful claims to the former character, thought he might therefore successfully enact the part of the latter. Poor fellow; a prophet without a God, without spiritual insight, devoid of miraculous power, and without the gift of prediction, and having himself no faith in immortality—verily it is doubtful if this nineteenth century has presented a spectacle so truly pitiable.

But Auguste Comte, there is reason to believe, not only misconceived the attributes proper to a prophet, and so grievously misapprehended his own vocation in the world, but that he also equally misapprehended the attributes in humanity to which religious tuition should be primarily addressed. He appealed to the intellectual faculties, and thought that his religion would be received, because it was rational. But religions have always been accepted, because they were thought to be divine. Auguste Comte was not only a philosopher, but his system was a philosophy of life—simply that, and nothing more. It was thoroughly human, both in its origin and its aims; but all successful and permanent religions have claimed to be superhuman. They have always announced their grander truths as direct revelations from the supersensuous sphere, and these truths were promulgated as having an important and practical bearing, not only on time, but also on eternity. It is, of course, unavoidable, that in systems so characterised, the founder should teach with authority, and not as a philosopher, and if M. Comte and his friends were un-

prepared for this, they had better not have given us a "religion," but something with a title far less pretentious.

But it is time that we should examine Positivism in some of its details, as a system professing to be the future religion of humanity. And here let us do justice to the grandeur and truthfulness of M. Comte's fundamental idea, that what the world now really wants is reconstruction. We are approaching the termination of a critical and disintegrative era, so truly mundane in its area, that every religion in the world is effete. It need scarcely be said, that, as an accompaniment of this, every system of philosophy is unsettled, and the entire constitution of society, in all its aspects, is unsafe. The old beliefs have vanished, the ancient loyalties have departed, throughout not only western Europe, but the greater part of Asia. The dilapidation is universal, and the only certitudes left us are those of science, with whose reorganisation, therefore, M. Comte was wise in beginning. He was also quite right in regarding Europe, where there is still intellectual life beneath the ribs of a moral death, as the area of re-emergence. But was he equally right in regarding the Protestant countries as largely excluded from this area? Is it not precisely at the point of greatest disintegration, that we should expect reconstruction to commence. Catholicism is too well organised to permit of reorganisation. It is in Protestant countries that religious disintegration has been carried farthest; and it is there, consequently, that we should expect the commencement of organisation. To be definite, we regard Britain and not France as the point of crystallisation.

Let us enter somewhat more minutely into this matter. France is yet politically and religiously at the purely negative stage; she has destroyed monarchy to leave anarchy—restrained by the sword of a military despotism; so in religion, where she is not papal, she is sceptical. Ethnically, this is due to the fact that she presents a Celtic area, very inadequately baptised by Teutonic blood, so that a very large moiety of her population are physically effete rather than regenerated Gauls. Geographically, it is due to the fact that she is not the true terminus of the great north-western march of empire and civilisation. But it is otherwise with Britain. Here the reorganising tendency is clearly manifest. The English have long practically understood that "to destroy you must replace." As they limited the monarchical, they developed the representative element in government; and, as they destroyed the papal, they developed a Protestant hierarchy; and the Ethnic source of this ability to evolve and work appropriate institutions is, that they are Celts, thoroughly baptised by Teutonic blood, and so fitted without further aid for

another cycle of progress and power ; while the geographical cause is, that they are at the terminus of the north-western march of empire, and so at its inevitable point of culmination, where reorganisation commences.

We have already said that M. Comte committed a fatal error in promulgating a religion without a God. Such a solecism involved two grave mistakes. It was in the first place, a retrogression in thought. Monotheism is the grandest religious idea to which the human mind has yet attained. It is the bourne to which humanity has tended through countless ages, and having once attained, the laws of progress assure us that it will never surrender it for an inferior conception. You may displace one God by another. Jehovah may succeed Moloch. And the angry and jealous Deity of the Pentateuch may be superseded by the loving and longsuffering Father of the Gospels. But a revealed Deism will never finally succumb to a philosophic Pantheism. If you would destroy the God of your superstitious countrymen, replace him by a better ; he will never yield to a mere negation. In the next place, M. Comte, by this procedure, severed himself from the past. Positivism is not a living growth out of Christianity, but a madeup system of philosophy standing in direct antagonism to it. It is not a branch of the mystic Ygdrasil, with the lifesap of the ages circulating through it, but a pretty little hothouse plant, from the great Paris conservatory of thought, that would perish in a day if exposed unprotected to the rude blasts of a northern winter.

Another grave mistake of M. Comte, only secondary to his fatal omission of Deity, was his practical denial of immortality. Now as monotheism is the grandest idea yet attained in relation to God, so his afterexistence is the noblest conception yet developed in reference to man, and although schemes of philosophy may be propounded without it, no system of religion can venture to ignore it. You may displace an inferior by a superior conception of immortality, but with the idea itself you can never dispense. The source of M. Comte's error in these omissions was his confounding religion with philosophy. He did not seem to know that God and immortality are intuitions of the spirit not conclusions of the intellect, that they are sublime veracities, primarily revealed by seers, not simple truths, carefully elaborated by metaphysicians. Perhaps this matter requires a little farther illustration.

In any enumeration of the world's masterspirits, it is impossible to omit the prophet. How in any true history of humanity can you ignore such beings as Moses, Christ, or Mohammed ? Why as actual forces, all the philosophers that ever lived weigh but as a feather in the balance against them. Now after allowing for all the exaggera-

tions of tradition, it is very obvious that these mighty seers, these great architects of faith, constitute a special order of intelligences, having certain generic features in common, and in virtue of which they differ, not only from the mass, but also from other men of genius. And primarily in the order of their distinctive attributes, we may enumerate their constitutional susceptibility to supersensuous illumination, or as the mesmerists would say, to spontaneous clairvoyance, implying, it need scarcely be said, much else. But of all this M. Comte knew nothing, and so was enabled to confidently propound himself as a world's prophet, on the stock-in-trade of a Parisian savant.

But omitting this consideration, as being perhaps rather too esoteric for uninitiated readers, let us contemplate this Godless faith of the scientific Frenchman, from the ethnic standpoint. Upon any enlarged and really philosophic view of the great religions of the world, their adaptation to racial specialities becomes at once manifest. Judaism and the faith of Islam are obviously Semitic creeds. They are unitary and masculine, and reveal God, not as the indwelling force of nature, but as her creator, as a selfsubsistent spiritual entity, dwelling above and beyond her. In reality, as the infinite and eternal contradistinguished from the finite and temporal. This is revealed Deism. Now Brahminism and Buddhism are as obviously Aryan creeds, that is, they are essentially pantheistic, and see God, not *above*, but *in* nature. Hence their cardinal doctrine of incarnation, the divine human being the highest possible form of the spiritual and eternal manifesting itself in the material and temporal. Now in Christianity we have a combination of the two, that is, we have a Semitic God as creator and an Aryan incarnation as intercessor, the tendency being, in accordance with our racial proclivities, to prefer the latter to the former. Indeed the thorough Aryan will assert stoutly, that it is quite impossible to approach God except through Christ, although if he would only look abroad he might see Jew and Moslem doing the thing every day. Under Catholicism, the adoration of the Virgin and the invocation of Saints, show us the lingering Semitism of Christianity, largely overlaid by the pantheistic proclivities of the classic race. Now the system of M. Comte is in reality this adoration of the Virgin—that is of the woman, and this invocation of Saints—that is of select humanity, with every trace of intruding Semitism thoroughly eliminated. It is the pure pantheism of the Latin nations, at its germinal stage, before a formal and avowed polytheism has had adequate time for development.

Now it must not be supposed that the foregoing amounts to a sentence of entire condemnation. Pantheism has its legitimate domain

in the religious sphere. The fact that it is the religion of the Aryan or intellectual division of the Caucasian race, as contradistinguished from Monotheism, the creed of the Semites or moral division, may suffice to show that it is not without its rightful claims on our attention. In truth, what humanity now needs, as we have already hinted, is not the entire supercession of one of these creeds by the other, but their union in a prolific marriage for the production of a third, combining the good qualities of both, and thus superior to either. In a sense Christianity was the beginning of this process, and what the world is about to see, is its continuation. Judaism and Hellenism were the representative types respectively of Semitic and Aryan thought, and as they coalesced under the political supremacy of Alexander and his successors, and interfused amidst the cosmopolitanism of all-absorbing Rome, Christianity was the result. Such elements of progress as the world then afforded were thus absorbed and assimilated, and what we now want is a similar absorption and assimilation of its present elements. These are still the loftiest and purest Monotheism of the morally developed Semites, and the philosophy, literature, science and art, not omitting even the direct religious Pantheism of the intellectually expanded Aryans. We now then begin to understand something of M. Comte's real mission and of that inspiration of the age which urged him to its fulfilment. He was not the world's "coming man". He had neither the moral elevation or the true intellectual expansiveness requisite for this, to say nothing of the more than heroic energy and poetic inspiration that go to make up our conception of the world's future prophet. He could not take in both sides of the problem. He was too thoroughly a Pantheistic Aryan to properly appreciate the grandeur and importance of the Semitic elements, in promoting the religious development of humanity. But from this very speciality in his mental constitution, he was, perhaps, all the more qualified for assisting in the arrangement and classification of the sciences, and in otherwise organising the Aryan elements of progress prior to their assimilation as integral parts of the religion of the future.

Let us enter somewhat more minutely into this subject. Monotheism is the sublimest conception which has yet been formed by the mind of man. It is, indeed, so grand and so lofty, so positive and so masculine, that under its best form, as among the Jews, it is utterly destructive of art, and cannot rear even its own temple. While under its ruder and severer aspect, as proclaimed by the desertborn son of the Koreish, it ends, as we see in all Mohammedan countries, in political decay and physical desolation. Nor is this matter for astonishment, for it is only a half truth. It asserts the divinity of God, while

by implication it denies the divinity of nature, and therefore of man, the child of nature. Hence the necessity for the Aryan element of Pantheism, which so loudly proclaims this divinity, and even asserts its distinct incarnational manifestation. For a full religious development, there must not only be a worship of God, but also in a sense, a worship of nature, and at least a glorification of humanity. Now it is this glorification, this veritable apotheosis of humanity which constitutes the fundamental truth of Christianity, and gives it its acknowledged power over the Aryans of the West. Just as the same doctrine, gives the great incarnational faiths of the East their hold upon the Aryans of Asia, and through them, upon their ruder neighbours, and in a sense congeners, the Turanian populations of the farther Orient. For a full proclamation of the divinity of nature, albeit it is the major and inclusive premiss, and in due logical sequence should have preceded a recognition of the divinity of man, we have yet to wait. But for this the labours of modern science are, as our religious friends might say, a providential preparation.

We have been severe on M. Comte, or rather on his doctrines. But this was unavoidable. His mistakes were so grave and his pretensions so preposterous, that to expose them was to condemn him. Let there be no misapprehension in this matter, however. For Auguste Comte, as a private individual, we entertain the most profound respect. As the organiser of science the world will ever be his debtor. But as the would-be founder of religion, we regard him with a pity bordering on contempt. It must not be supposed, however, that he proclaimed nothing but errors, or that his labours were altogether useless, or as some would assert, decidedly mischievous. He appeared as the herald of reorganisation in an age of chaos. Although not the true Demiurgus, he was doubtless his precursor, and as a sign the importance of his advent cannot well be overestimated. He came too at the right time and of the right people for the work which he had to perform, the classification of the sciences preparatory to their recognition and absorption as a part of the impending religion to humanity. With this, some may, perhaps, think that he should have been content. But it should be remembered that France has a social as well as an intellectual mission, and perhaps her inspired son spoke under compulsion in the one case as well as the other. Of M. Comte as a religious founder we have already expressed our opinion. Let us now look at him as a social reformer; and here we must again refer to his religious system, but this time, not as an embodiment of doctrine, but as a scheme of ecclesiastical polity.

Religion implies a priesthood. If you permit the former, you cannot refuse the latter, for it is but the visible organ through which the

invisible life discharges its functions. It is but the material vesture in which the immaterial spirit has prevailed to clothe itself. A hierarchy is the ecclesiastical necessity of a spiritual age, and so we may say, in other language, the inevitability of a reconstructive era. Such an assertion is of course very unpalatable to destructives, but it is none the less a veracity, resting on the ever accumulating experience of the ages. So far from humanity outgrowing this, it is on the contrary growing into it. A true hierarchy is utterly unknown to the Negro, and but imperfectly so to the Turanian, for the Buddhism of the latter, whether in doctrine, organisation, or ritual, is an importation from Aryan India. Nigritia has its Obiman and Mongolia its Shaman, till assisted from without.

This very fact, that a hierarchy is the special product of Caucasian culture, must ever give this complex form of ecclesiastical organisation an interest of no common order to the true anthropologist. In it must be reflected some of the noblest instincts, shall we say, some of the grandest inspirations of the highest type of humanity. In its perfect form, a hierarchy is the organ of a theocracy. It was this once; it will be this again when the epicycle has fully revolved. To this the Papacy was an approximation. It was this in theory, but not in fact; it was a promise of which we yet await the fulfilment. Now a theocracy almost implies not merely a divine founder, but also under some form a continuity of the divine presence. The Grand Lama is presumably a reincarnation, and even the Pope professes to be Christ's vicar; and in his official capacity as head of the Church is supposed to possess so much of living inspiration as to justify his claim to doctrinal infallibility. It need scarcely be said that Protestants do not understand this, but if wise they would know that every simulacrum implies somewhere or somewhen a real presence. Perhaps they will recollect, as they are familiar with Biblical instances, that under the Semitic theocracy of the Israelites, among whom, from racial proclivities already specified, an avowed incarnation would have been distasteful, there was the (to Moses) visible descent on Sinai, and (to the high priest) the permanently visible shekinah between the cherubim. After such considerations as the foregoing, poor M. Comte's miserable savants, with the influence of women but without the power of men, are so irresistibly suggestive of the ridiculous, that perhaps, in mercy to his memory and to the feelings of his living disciples, the less we say about them the better! Suffice it that hierarchies in their splendour have always used princes as their puppets, and should they be destined to another culmination, will doubtless do so once again, the solemn remonstrances of revolutionists and the stringent regulations of M. Comte to the contrary notwithstanding!

And here let us pause for a moment to contemplate the childish confidence and well-meaning self-sufficiency of this great and good but sadly mistaken man. A Celtic-Gaul, without the shadow of a suspicion that his Aryan specialities as a Pantheist, utterly disqualified him as a doctrinal teacher, for leadership among the Monotheistic Semites, he nevertheless proceeds to promulgate a world religion in which there is no God ! Practically ignorant also of the great law of progress, that mankind never give up any one form of truth to which they have attained, till it has been superseded by another and a higher, he thought the Christians of Europe would surrender their belief in immortality for a participation in the cheerless celebrity of his *grand être*. Then, proceeding to found a hierarchy of intellect, he thinks to limit their power through all ages by a few arbitrary rules laid down in his study at Paris. What a stupendous ignorance is revealed in these few but cardinal errors. Ignorance of race, ignorance of history, ignorance of the fundamental laws of human progress. It is very obvious that M. Comte really knew nothing of racial speciality in reference either to religion or government. And it is equally obvious that he was oblivious of the great truth, that empires and hierarchies have their own laws of growth and decay, and are in each, not only independent of arbitrary rules, but also to a considerable extent even of disturbing forces.

Returning, however, from this almost personal digression, let us, ere concluding this portion of the subject, make a few more remarks on priesthood and its functions. A hierarchy is, strictly speaking, an organisation of the cultured intellect of any given time and area. It is a most mistaken idea that it numbers only the celebrant clergy. It did more than this, even in the rudest ages. It embraces also the lawyers, whose judges answer to the bishops, the physicians and men of science, the artists and men of letters, whose poets are an order of subprophets. In other words a hierarchy is tantamount not merely to the clergy, but also to the clerisy of the land, and this too in a state of efficient organisation. Now the speciality of these latter ages, using that term in a rather wide sense, is the disorganisation of this body, accompanied, of course, by a great diminution of its recognised dignity and formal power. And perhaps it is in perfect keeping with this, that the most spiritual of all its orders, the men of letters, in truth as we have said, its very prophets should be the most thoroughly disorganised, veritable Ishmaelites of the desert of civilisation, unvestured, untempled, and, it need scarcely be said, *unendowed* ! The truth, however, is that the universities, with their gownsmen and professors, represent this branch of the great hierarchy of intelligence—albeit, perhaps, the traditional rather than the vital phase of the matter.

Now we can readily understand that this condition of things is quite satisfactory to John Stuart Mill and those who think with him. It is revolution realised. Hence his opposition to that portion of M. Comte's scheme which implies the reorganisation of the spiritual power. But in this, as in many other things, the founder of Positivism, however shortsighted in some respects, at least saw farther than the revolutionists, that is, he looked beyond them, over this age of chaos, into one of reconstruction, which, quite independently of any immediately presentable signs of its approaching advent, is obviously impending, if only from the law of action and reaction. But when it comes, and the ripples of the returning flood are distinctly visible, we may be sure that it will be with all the resistless force of a mundane tide, in regard to which human regulations and artificial obstacles are simply contemptible.

But if hierarchies, whether in their origin, growth, splendour, or decay, are subject to the operation of regular laws, so also are rubrics. The ceremonial of a religion is no more an accident than its doctrine. As the last is an inevitable development, from previously existing elements of thought, so the first is an unavoidable necessity, a practical result of previous example. The Church of Rome did not originate her vesture or her ordinances, nor, we may add, even the manner of their celebration. They are largely an inheritance, which, however, she has very wisely not allowed to lie barren. And however plain-sailing, simple-minded Protestants may object to it, there is no doubt they will prove very largely the germ, or shall we say foundation, of the rich and imposing ceremonial of the future. But Auguste Comte quite mistook his vocation in attempting to legislate on such matters, which, as we have said, are things not of arbitrary appointment but of irresistible growth, and that growth we may add in strict accordance with racial proclivities.

It is the same with architecture. Rome could no more help building her Gothic cathedrals, than she could avoid the celebration of mass. The Olympian faith is reflected in the Parthenon; while that of mediæval Christendom may be read in York Minster. The race and the faith determine the temple. Given a new faith, and you obtain its inevitable sequence, the requisite inspiration for a new style. It is the essentially transitional character of Protestantism, which renders its architecture so poor and imitative. It is not, strictly speaking, a faith, but simply the protest against an old and the preparation for a new one. Let no prophet, therefore, trouble himself about his temple, well knowing that all spirits become fittingly vested in due time. Alas! from how much needless trouble might would-be reformers often save themselves, by a little more reliance

on the divine yet simple law of GROWTH. These good people do not seem to understand that, if you would have an oak, you must plant an acorn—and wait the result. They, on the contrary, want to *make* their oak, and of course suffer ignominious defeat, at the hands of insulted and indignant nature, for their pains.

Now, we can easily understand that the disciples of M. Comte, while readily admitting the truth of these remarks in relation to such men as St. Simon and Robert Owen, will nevertheless vehemently deny their applicability to the founder of Positivism. And we grant that plenty of passages may be selected from his writings, most favourable to the slower processes of growth and development, and directly condemnatory of needless and useless interference. This, indeed, was his theory; which, however, his practice very commonly contradicted. Indeed, it would almost seem that he thought no one had a right to interfere with the historical continuity of human progress—except Auguste Comte! We quite grant that he was true to his theory in the systematisation of the sciences, which was a movement, as Father Newman would say, in the right line of development. But his Positive religion is a more decided breach of theological continuity, than anything of which history affords the practical example. In truth, one important element of its impracticability, is the fact that it does not grow out of, or directly rest upon, any antecedent system. This, however, is by no means the only instance in which M. Comte's theory and practice contradict each other. Thus, he is frequently speaking of *unity*, and yet his scheme for the temporal government of the world consists in the institution of an indefinite number of small republics, ruled by their principal capitalists. He apparently not seeing, that the only real *unity* possible, is under a theocratic autocracy, whereto his model republics are the opposite pole of multiplicity; poor, weak, *experimental* humanity, having generally had to content itself with something less extreme than either!

M. Comte's ignorance of race was fatal to his pretensions whether as a religious founder or as a social reformer, with a mundane mission. His area, not only of experience but also of outlook, was essentially European, where it was not still narrower, as being especially French. His geographical, and with this, his ethnic range, was far too contracted for a true humanitarian chieftain. And he laboured under a corresponding defect in reference to time. He was too much the child of the revolution. He mistook many of its essentially transitional and merely provisional arrangements, for the normal manifestation of governmental principles. His division of what may be called secular society, simply into capitalists and workmen, is an instance in point. France having destroyed her here-

ditary nobility, he thought such an institution unnecessary. It is obvious that he did not understand, and therefore did not believe in caste ; or, speaking anthropologically, of race within race. It was an idea, on which the revolution necessarily made war, and he accepted its levelling conclusions without investigation. The oracular voice of history was dumb to him on this subject—or perhaps he was deafened by the sound of the tumbrils, that conveyed the effete remains of Frankish chivalry to the guillotine. Here, again, his ignorance of race was made manifest. As the highest types have the greatest hierarchies, so have they, in their normal condition, the grandest nobilities. Feudalism is an impossibility in Nigritia. Let us clearly understand this matter. The hereditary transmission of type and quality of mind is a fact in Nature, and as speciality of endowment and individuality of character become more marked as you ascend in the scale of being, there is of course more diversity of type and quality in the higher races than the lower ; in other words, there is more material out of which to evolve the institution of caste, an inevitability of the future, as sure as it was an actuality of the past. Here, too, as in many other phases of reconstruction, it is very obvious that the movement has already commenced, and society is even now dividing into *horizontal* layers ; in truth, settling into parallel strata—as some people find to their unspeakable mortification. Now to this we already hear the revolutionists uniting in one consentient chorus of denial—which, however, does not alter the fact in nature. Even into this matter M. Comte saw further than they do, and clearly perceived that there must be an owning and a producing class ; but then, as he constituted his hierarchy out of savants, so he made his nobility out of capitalists, and as we have already remarked, the less said about either the better.

But there is another phase of this matter, for which also M. Comte's system makes no adequate provision—we allude to the conquest, and in a sense, colonisation, of the inferior by the superior races. Now, ethnically speaking, this is obviously to be the great feature of our more immediately impending future. Perhaps this needs some explanation. The racial event of the last two thousand years was the subsidence of the nervous and the military predominance of the muscular races. We see this from India to Britain ; the Tartar conquering Asia, and the Teuton subduing Europe. It was this movement which brought out not only Alaric and Attila, but also Togrul Beg and Alp Arslan, Genghis Khan and Tamerlane. The only great exception to it was in the rise of the Saracenic power of the Caliphs, ultimately overwhelmed in the resistless flood of Turcoman invasion. But this movement has now ceased. The

needful baptism of bone and muscle has been effected, and once more the nervous and intellectual races are assuming their rightful predominance. And it is observable that coincident with this, we see the seat of political supremacy transferred to the Celtic area of Gaul and Britain, in all probability the primæval site of Caucasian culture, and now about to enter upon the epicycle of its former greatness. As an additional evidence of the almost mundane extent of these racial tides, it is also noticeable, that while the Osmanlies were subduing the Greek, the Mantchou tribes were conquering their more civilised congeners, the Chinese. And now, when the Classic races of the south-west of Europe are recovering their former independence, the Celestials are preparing to throw off the yoke of the northern nomads. Action and reaction are, and probably have been from time immemorial, propagated from Britain to Japan, right across the major axis of the Old Continent, and as we now see, even into the New, the colonisation of America being simply a prolongation of that western movement of civilisation which constitutes the cardinal fact of history.

To pass however from these, perhaps, rather vague generalisations, into more practical details ; it is very obvious that Caucasian Christendom is now virtually the imperial centre of the world, and nothing but the petty jealousies of its rival nations, prevents their carrying this out into universal political supremacy, by means of military conquest, as the English have done in India and the Russians in Siberia. Asia must be, for a season, the appanage of Europe. Once more the Aryans will sweep out of their north-western home upon south-eastern conquests, but this time they will not be arrested by the Ganges but the Pacific Ocean. And is it conceivable that this should take place without the reappearance of caste ? not at first, perhaps, as a formal institution, but ultimately as an inevitable growth. We may be quite sure that the Caucasian and Turanian will never settle down together on equal terms, when the former is the master. Let us remember that *written* history can be no guide in this matter. It narrates little more than the gradual subjection of the superior by the inferior types. In a racial sense it is simply the chronicle of disintegration and revolution. To understand and truly forecast the era on which we are about to enter, we must go back to tradition and archæology, to the period when India and Egypt were laying the foundation of their complex institutions. Short of this, historical instances will simply land us in error.

This matter goes down to greater depths than is usually supposed. As we have already shown in some former papers, the entire north-western march of civilisation was accompanied by a process of analysis and disintegration in language, institutions, and of course in ideas.

Now the opposite, or south-eastern march, will, we have every reason to believe, prove the very reverse of this ; that is, it will be a movement of edification, religious, political, social, and intellectual, being in all this but the epicycle of that prior movement whereof mythology, philology, and archæology are now our sole records. Granting this, it must be at once obvious that any system of religion or philosophy which does not take such an impending movement of humanity into account, must fall short of modern pretensions, and will fail in that grand era which awaits us in the future. Shall we be thought severe if we pronounce the Positive religion thus inadequate. Alas ! how much else in which mankind now place undoubting faith will also prove equally inadequate in that great day of account, so that Auguste Comte and his Parisian creed will not stand alone in the list of the rejected.

We have not yet exhausted the errors of M. Comte ; nor is there any reason why we should attempt the accomplishment of so great a feat. Our purpose was simply to contemplate Positivism as a religion from the racial standpoint. We think that, thus tested, it has proved insufficient. Our judges in this matter are not the general public and men of letters, nor even the smaller, and apparently yet more competent tribunal of men of science, but anthropologists alone, for they only are competent to decide such a question, and to them we commit its further consideration. But to thus conclude our review of the labours of so great a mastermind with merely a verdict of condemnation would, we feel, be not only ungrateful, but positively unjust. As we have said, M. Comte had many deficiencies utterly fatal to his astounding pretensions as "the coming man." He had neither the depth, or the grasp of thought, nor the more than poetic sublimity of conception, to qualify him for so stupendous an undertaking as the founding of a world's faith. He had not even the requisite attainments, for a knowledge of race is among the necessary qualifications of him who would legislate for any other people than his own. But with all these wants he was, in many points, beyond his age, and uttered truths for which the future will acknowledge itself his debtor. He saw beyond the revolution, and, as a consequence, proclaimed the necessity for reconstruction. To a certain extent he even effected this in his own, that is, the scientific sphere. And, indeed, it may be said, that wherever he was really guided by the true spirit of re-edification he was right, while wherever he was the child of the revolution he was wrong. He did a noble work in the systematisation of the sciences ; and even granting that the attempt was premature, it was still the life-labour of a giant, in his task as a pioneer. He was correct, too, in his assertion that we want a reconstitution of

the spiritual power. But he was as decidedly in error when he would have erected this stately edifice on the sandy foundations of a Godless creed, that dared not proclaim the immortality of man. In this he was simply the child of the revolution—the mathematician turned prophet! It is the same with his temporal power: society does want reconstruction, but not on the simply republican basis of capital and labour, even though the former should, as a rule, become an hereditary possession for the public good.

The truth is, M. Comte was an Aryan—simply that, and nothing more. Hence his religion is a philosophy, not a faith; and so will remain a beautiful dream, incapable of realisation. He saw and bravely proclaimed the superiority of man's moral over his intellectual nature, but he did not know how to enthrone it, in its rightful supremacy. In short, wherever the Semitic elements of universal progress come into play, he utterly failed either to appreciate or apply them. But he was often great as an Aryan. His eloquent advocacy of the claims of women is an instance in point. A pure Semitism, as in the case of Judaism and the faith of Islam, has always proved deficient in this province. It is the Aryan element in Christianity that has permitted of the worship of the Virgin, although it has not yet been able to restore her sisters to the service of the altar.

In some features of his system M. Comte's racial specialities become even yet narrower, and he ceases to be simply the representative intellectual Aryan proper, having sunk into the Celtic Gaul of monarcho-imperial sympathies, and, of course, with ultra revolutionary antipathies. He has not the faintest conception of true individuality—in others. To him there is but one individual in existence—and that is Auguste Comte, with, of course, his angelic counterpart, the divine Clotilde! He is to be the model man, and she the model woman, to the end of time. Poor fellow, with all his towering ambition, he was only a Frenchman, one of those thirty millions of human machines whom a Bourbon or a Buonaparte, when of competent force, can lead whithersoever he will—the clan blindly following their chief to glory or the grave. Of course, as a logical sequence to this radical defect in his mental constitution, he had no true idea of liberty—not even that of the intellect. He had no faith in the spontaneity of human endeavour. He did not understand it. He wanted everything to be subordinated to system—his system. It is doubtful if he even remotely comprehended genius, or its functions. He at all events made no provision for the free exercise of its powers. It would have proved a terribly disturbing element in his model world of artificial French propriety. There is no necessity for dwelling on his limited positivist library. Such follies refute themselves. No truly

wise man has any fear but that, in the matter of literature, the ages will winnow the chaff from the wheat. So with his limitations and directions as to philosophic speculation or scientific research, his attempted interference was simply the official impertinence of an old French prefect, grown grey in the work of needless superintendence. But we have done. For M. Comte, as an individual, we entertain the greatest respect. Of his system of religion, we will only say that it was the dream of a closet philosopher, who had but a limited personal experience, even of his own people, and no profound or extensive knowledge of the capacities and requirements of alien and diversely constituted races. His systematisation of the sciences will doubtless ever remain as an enduring monument of intellectual power; but the sooner his foolish creed is forgotten the better, not only for his own reputation, but we may add, that of his disciples.

Let not the general tenor of these remarks be misunderstood. There is no doubt that the Semites are pre-eminently the moral division of the Caucasian race, while conversely, the Aryans are the intellectual. But it does not at all follow on this account that the latter are never to take a leading part in the religious development of mankind. This altogether depends upon the work to be done. The Semites, as Jews and Moslemin, have for the time accomplished their portion of the common labour in the propagation and maintenance of monotheism. And what the world now wants is the union with this of the intellectual culture of the Aryans. Existent Christianity is a result of the beginning of the process. In its doctrine, we see the influence of Greek neo-Platonic philosophy; in its ritual, the impress of Roman ceremonial art. But the process of interfusion is by no means complete. Literature and science are still unrepresented in our theology. The religious life of humanity is obviously on the verge of another great period of growth. And the true impulse to this can only come from nations still vital, that is, from the people of Western Europe, the true representatives of Aryan intellect in its more modern phase of development. Asia and its people are dead—awaiting their resurrection, of which, however, Europe must sound the trump. Thus, then, we are not opposed to M. Comte's claims, simply because he was an Aryan, and nothing else, but because, with an unwisdom which was astounding in such a thinker, he wished to ignore our religious progress in the past, and to build the temple of the future, without acknowledging our indebtedness to Semitic tuition during the existing Christian era. We are opposed to him because he wished to substitute a philosophy for a religion, and thus, instead of marching onwards into coming time with ever-accumulating wealth, he would have dropped some of our choicest jewels on the road. But we need have

no fear. What he attempted another will accomplish. Where he failed a greater will triumph. And perhaps in that far future, when the records of these transactions are scanned with the impartial eye of a distant posterity, it will be seen that the life-labour of this earnest and devoted, though mistaken Frenchman, was not altogether in vain, even as a preparation for that other and greater who is to follow in his path, and to succeed where he failed, and to triumph where he was defeated.

At some other time we purpose following out these inquiries on "Race in Religion" by a paper on the existent faiths of the world, and their relationship to the races that hold them. We shall then endeavour to show that Brahmanism and Buddhism are purely Aryan creeds; Judaism and Islamism, Semitic creeds; while Christianity is a result of the fusion of Semitic and Aryan elements in an early, not certainly the final stage of their combination. By an experience thus obtained from the study of history, and the observation of existing facts, we may perhaps be enabled to throw some little light on the probabilities of the future, not however, we trust, in the spirit of dogmatism, but of pure speculation, desirous only of the truth.

ON THE APPLICATION OF THE PRINCIPLE OF NATURAL SELECTION TO ANTHROPOLOGY,

IN REPLY TO VIEWS ADVOCATED BY SOME OF MR. DARWIN'S DISCIPLES.*

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THE object of the present communication will be to show that the recent application of Mr. Darwin's hypothesis of "Natural Selection" to anthropology by some of Mr. Darwin's disciples, is wholly unwarranted either by logic or by facts.

I have before called the attention† of anthropologists to the remarkable fact that some Darwinites are Monogenists, and, what is still more remarkable, that some Darwinites in this country are even now teaching as a scientific induction, that there is, at the

* This communication was read before the Anthropological Department of the British Association for the Advancement of Science at Nottingham, on August 24th, 1866.

† Carl Vogt's *Lectures on Man*, 1864.

present day, but one species of man inhabiting the globe. We are told that Mr. Darwin's theory has had the delightful effect of "reconciling and combining all that is good in the Monogenistic and Polygenistic schools."* This is the estimate of Mr. Darwin's hypothesis put forward by Professor Huxley. So, too, Mr. Wallace observes: "It is my wish to show how the two opposing views can be combined so as to eliminate the error, and retain the truth in each, and it is by means of Mr. Darwin's celebrated theory of 'Natural Selection' that I hope to do this, and thus to harmonise the conflicting theories of modern anthropologists."†

Mr. Wallace has, however, not drawn attention to the fact that diversity of existing species of man does not necessarily involve diversity of origin, for he asks the double question: "Are the various forms under which man now exists primitive, or derived from pre-existing forms? or, in other words, is man of one or many species?"

Professor Huxley, however, is fully alive to this fact, and I shall therefore take his views, and see how far his reasoning is sound.

In the first place, does Mr. Darwin's hypothesis warrant the assumption of the unity of origin of man claimed for it by the two of his disciples from whose writings I have quoted?

Professor Huxley says that Polygenists have failed to show a specific difference between any two species of man, and that the test of hybridity has failed. These are, however, mere matters of opinion on which we need not dwell. It may be that Professor Huxley is not satisfied with the sort of evidence which the advocates for the diversity of species of man have adduced; but perhaps he may long exclaim, as Rudolphi did more than half a century ago: "I have for years taught the natural history of man, and taught it according to the prevalent opinion of the unity of the human species, as Blumenbach has apparently established it with so much learning; yet, just because I taught it, there arose doubts in my mind which so much increased that I finished by teaching the opposite opinion." I hope, too, that Professor Huxley may be able to say with this author: "There is no point of knowledge so dear to me which I am not willing to abandon as soon as I am convinced of its falsity." I feel sure, however, that he will agree with this celebrated author in the sentiments he has expressed, that "if there be a duty of a teacher, it is to tell his views openly."‡

But to go on from Professor Huxley's opinions to his statements

* "Methods and Results of Ethnology", by Professor Huxley, *Fortnightly Review*, No. 3.

† *Journal of the Anthropological Society*, vol. ii, p. clix.

‡ *Über die Verbreitung*, etc., 1812.

and his facts. Amongst the former, I find this assertion: "Surely no one can now be found to assert that any two stocks of mankind differ as much as a chimpanzee and orang do." Now, if Professor Huxley simply means in physical structure, this statement may have some truth in it; but if it is to be put forward as a general statement that in the totality of anthropological characters there is not so great a difference between any two species of man as between these two species of apes, I think that question may be one which is fairly open to debate. I have, however, some three years ago, made what I then believed, and still believe to be, a fair deduction on this subject in these words: "That there is as good reason for classifying the Negro as a distinct species from the European, as there is for making the ass a distinct species from the zebra; and if, in classification, we take intelligence into consideration, there is a far greater difference between the Negro and the European, than between the gorilla and chimpanzee."

Professor Huxley speaks of the "overwhelming evidence in favour of the unity of the origin of mankind afforded by anatomical considerations." In the first place, I contend, on the authority of very many anthropologists, that the evidence is not of the nature described; secondly, that many of our best anthropologists consider these grounds alone to point to an entirely different conclusion; and, thirdly, I believe that such characters only, however uniform, cannot of themselves afford "overwhelming evidence in favour of unity of the origin of mankind."

With regard to this last point, I am quite prepared to admit that man should be studied like any other object in nature. I do not claim for him any faculties which cannot be as clearly demonstrated as his physical characters; and, on the other hand, I contend that men of science have no right to base the classification of mankind either on anatomy or any other single point of observation. I say more. Anthropologists are bound to take the totality of the characteristics of the different types of man into consideration. Man is chiefly distinguished from the apes by his mental characters, and it is to these that we must look for assistance in our systems of classification.

Professor Huxley objects to the terms "varieties," "races" and "species," "because each of these terms implies, on the part of its employer, a preconceived opinion touching one of these problems, the solution of which is the ultimate object of science." So far very good; but Professor Huxley is not content with such negative advice, but goes on to recommend the use of the words "persistent modification" in the place of "race" or "species." But does not the term "per-

sistent modification" equally involve a theory on the part of those who use it? As Hollard long ago well remarked, "To say that mankind has become modified is to say that the varieties of the human species are derived from the same type and originated in the same cradle." Let Professor Huxley demonstrate, if he can, that the difference between the chimpanzee and the gorilla, "admitted to be distinct species by all zoologists," is a whit greater than the distinction between the Englishman and the Congo Negro, the Hottentot or the Australian.

I am also curious to learn what induced Professor Huxley to make the statement that "no one can now be found to assert that any two stocks of mankind differ as much as the chimpanzee and orang do," when one of the most eminent living naturalists—Louis Agassiz—has long held, and says he is prepared to verify, the very opinions which we are now told "no one will assert." Agassiz's words are,— "I am prepared to show that the differences existing between the races of men are of the same kind as the differences observed between the various families, genera, and species of monkeys or other animals; and that these different species of animals differ in the same degree one from another as the races of men—nay, the differences between distinct races are often greater than those distinguishing species of animals one from another." He then expressly asserts,— "The chimpanzee and gorilla do not differ more from one another than the Mandingo and the Guinea Negro; they together do not differ more from the orang than the Malay or white man differs from the Negro." He concludes most emphatically,— "I maintain distinctly that the differences observed among the races of men are of the same kind and even greater than those upon which the anthropoid monkeys are considered as distinct species."

Professor Huxley writes as though all men of science agreed with him respecting the unity of mankind. I contend, however, that the highest authorities on this subject are of an entirely different opinion. To give some evidence that such is the case, I will quote a few of the opinions of those who have devoted most attention to this subject, and are worthy to be regarded with respect by all.

G. Forster, writing in 1786, says,— "The supposition that there were several original species presents at all events no more difficulties than the assumption of a single pair. If the Negro originated in Africa, the whites in the Caucasus, and the Scythians or Hindoos elsewhere, centuries may have elapsed before they came in contact. In looking upon the Negro as a distinct species, There is a certain old book which gives no description of the Negro, and the great man, its reputed author, has perhaps not seen a genuine Negro. Yet any one who utters the probability of a plurality of species makes

an attack upon this old book, and is deemed an heretic. These heretics are wicked people, and led by ignorance. But I trust a philosophical jury will find me not guilty."

Voltaire said,—“the first white man who saw a Negro must have been vastly astonished, but the reasoners who would persuade me that the Negro is descended from the white man would astonish me still more.”

Rudolphi (1810) says,—“the possibility of 5,000,000 of men descending from a single couple cannot be denied, but only by a chain of miracles could it be realised. Accidents of all kinds could as much have occurred to the first pair, and the propagation of the race would then have been abandoned by accident. Nature does not proceed thus.”

Steffens writing in 1822, says,—“it is evident that empirical natural science is forced to assume a fundamental difference of the human species. Races are unchangeable; that, which by external influences, such as climate, mode of life, etc., undergoes a change of form, is a variety, not a race. Races may alter, but only by interbreeding. . . . As naturalists we repudiate the notion of endeavouring to reconcile our notion with religious tradition. We keep simply to the facts.”

Dr. Morton of America wrote thus more than fifteen years ago,—“After twenty years of observation and reflection, during which period I have always approached this subject with diffidence and caution; after investigating for myself the remarkable diversities of opinion to which it has given rise, and after weighing the difficulties that beset it on every side, I can find no satisfactory explanation of the diverse phenomena that characterise physical man, excepting in the doctrine of an original plurality of races.”

Professor Bérard in 1848 thus expresses himself,—“I cannot conceive how a mind free from prejudice and unembarrassed by certain extra scientific considerations impeding liberty of thought, can entertain any doubt on the primitive plurality of human types.”

Rémusat, writing in 1854, says, “if there did not exist a certain instinctive repugnance to the belief in an original and permanent inequality between human beings, and if our mind had not the tendency to simplify everything, the examples furnished by animals, and the difficulty of rationally and scientifically accounting for the varieties of the human species, the doctrines of unity would have been long abandoned. The knowledge of the general law of nature opposes this doctrine.”

Rémusat also asks, “can we form an idea of an earth adorned by a single plant of each species? Where did the animals find food upon an earth so naked? How could the first couple of fish have lived in a desert ocean? What we have said of animals and plants may be applied to mankind. Reason certainly sees no objection that the conservative profusion should also have presided at the formation of mankind, which may have appeared at once or successively in different

parts of the globe. This hypothesis, of which we do not undervalue the difficulties, better explains the difference of race. At any rate we cannot but hesitate to suppose that Providence would expose a single couple, and with it the whole future race, to be destroyed by some accident. Such is not the order of nature as science teaches us. If, then, our theory be rejected, we must suppose that in primitive times there reigned an order different from that furnished by actual data."

Burmeister, writing in 1856, says,—“After what has been stated we are justified in contesting the possibility of the descent of mankind from a single pair; we feel, on the contrary, compelled to assert the descent from many protoplasts. This may even be proved by the colour in different races. If all races descended from a single pair, all the shades must be derived from a fundamental colour, which in my opinion is impossible. If the black of the Negroes were really a burned white, and if the yellow of the Mongols were intermediate, the copper-red of the Americans would not suit this scale. It might be asked why have the Australians and Papuans become black, whilst the inhabitants of the Society and Friendly Islands living nearer the line remained yellow brown, etc. The whole theory (of the unity of species) appears to the unprejudiced inquirer in so unfavourable a light that no one would have entertained the idea of descent from a single pair, had it not been taught by the Mosaic history of the creation. In order to sustain the authority of the Scriptures, a number of authors not sufficiently acquainted with the results of modern researches have been induced to defend the myths of the Old Testament. The number of these defenders seem to increase in proportion as science rejects this dogma.”

Giebel (1859) asks,—“do all men, zoologically considered, belong to one species? This question is frequently answered from a zoological standpoint in the affirmative. The more carefully the comparison (between the races) is made, the more striking are the differences. They affect the whole skeleton, the vertebræ, column, shoulder, pelvis, and limbs, and upon these again depends the form of the soft organs, so that the race differences, both external and internal, are so deeply marked, that the zoologist sees no more races, but so-called typical species. Mere zoology can come to no other result than to assume specific differences among mankind.”

Dr. Robert Knox in 1862 thus expressed himself after studying the subject for forty years:—

“Men are of different races palpably distinct. These races are entitled to the name of species. These species, though distinct in themselves, form groups so as to constitute one or more natural families. As in animals so in man, who also is one. The affiliated races, although strongly resembling each other, yet differ remarkably, as well physically as morally, in a way wholly inexplicable, but on the principle that essentially they are not of distinct species or races, however originating. This difference in moral and physical qualities so remarkably distinguishing even the European races (mostly formed into

nations) is best seen by referring to their various forms of civilisation, to their religious follies or belief, their antagonism to each other, and generally to the view they each take of the external world,* which constitutes or gives a tone, as we say, to the character of their civilisation. . . . Distinct epochs or acts of creation imply a miracle; and miracles are impossible. The philosophy of Goethe, adopted by Geoffroy St. Hilaire, Oken, and some popular writers, is most probably the correct one; but the really scientific men do not as yet look on the theory as established on a strictly scientific basis. . . ."

It has long been the fashion for men of science not specially acquainted with the science of man to declare that the great and learned Prichard's conclusions on this subject ought to have considerable weight on the question of the diversity of races. There are many indications in Dr. Prichard's writings that even he was becoming alive to the difficulty of his own theory, for in one place he remarks :†—

"If it should be found that within the period of time to which historical testimony extends the distinguishing characters of human races have been constant and undeviating, it would become a matter of great difficulty to reconcile the conclusion (i.e. the unity of all mankind) with the inference already obtained from other considerations."

Now ever since the time this was written, some twenty years ago, all researches have tended to show that from the very earliest dawn of history races have existed as they are now. I believe that there is not a single authenticated example of such not being the case. Indeed, the tendency of modern research is to show that the differences in mankind were formerly at least as great physically as they are now. As Dr. Nott has well remarked :—

"History, traditions, monuments, osteological remains, every literary record and scientific induction, all show that races have occupied substantially the same zones or provinces from time immemorial."‡

Or as Mr. Luke Burke some eighteen years ago§ remarked :—

"Let there be pointed out any one nation or race of men which has changed its physical peculiarities, or any portion of them, without mixing its blood, and we give up our theory. Or let there be pointed out any one nation or race which once existed in a barbarous state, and subsequently raised itself to civilisation without mixing its blood or receiving instruction from foreigners, and we give up our theory. . . the lesson all history and all human experience have been teaching for ages; but carried away by a favourite dream, men have slighted or misunderstood this lesson. Where, we ask, are the historic evidences of universal human equality or unity? The farther we trace back the history of the past, the more broadly marked do we find all human diversities. . . . Such are the lessons taught by universal

* *Races of Man*, 2nd ed., p. 591.

† *Physical History of Mankind*, preface, vol. iii.

‡ *Types of Mankind*, p. 77.

§ *Ethnological Journal*, 1848, p. 30-33.

history ; lessons which speak not of human equality and unity, but of great and permanent diversities among mankind."

Carl Vogt,* one of the last and most logical writers on anthropology, says on this subject :—

"However much we may indulge in theological speculations on the origin and differences of mankind, however weighty proofs may be adduced for the original unity of the human species, this much is certain, that no historical nor, as we have shown, geological data can establish this dream of unity. However far back our eye reaches, we find different species of man spread over different parts of the globe."

If such a question as the unity or plurality of origin, or unity or plurality of existing species, could be settled by the opinions of those who from their study and other opportunities are capable of understanding the giving an opinion on their subject, the decision would, I believe, be on the side of the polygenists.

Dr. Prichard gave a very good reason why we in England did not hear more of the diversity of race, when he says of such views,—“If these opinions are not every day expressed in this country, it is because the avowal of them is restrained by a degree of odium that would be excited by it.”† There is one conspicuous instance of scientific honesty and consistency to be found in England, of a man who for half a century has manfully endeavoured to combat popular prejudice. I allude to my esteemed friend, Mr. John Crawfurd. May he long be spared to battle against the new form of monogenism which is attempting to arise amongst us. May he live to see the time when men of science will no longer lend the sanction of their names to the doctrine of the intellectual and moral equality of the different species of man. But not to dwell further on opinions, let us examine the arguments and facts in favour of unity on the Darwinian hypothesis.

Professor Huxley apparently declines to admit mental phenomena as any part of his principles of anthropological classification, but is he, or anyone else, justified in doing so ?

Some time since Professor Huxley remarked,—“It is quite certain that the ape, which most nearly approaches man in the totality of its organisation, is either the chimpanzee or the gorilla ; and as it makes no practical difference, for the purpose of my present argument, which is selected for comparison,”‡ etc. This is an important admission, and in a measure justifies the rejection of the hypothesis of the unity of origin of mankind.

Not long since the late Professor Rudolph Wagner remarked,

* *Lectures on Man*, p. 422.

† *Nat. Hist. of Man*, 1848, p. 6.

‡ *Man's Place in Nature*, p. 70.

"Just before Darwin's book appeared, the theory of the possibility or probability of the different races of mankind having descended from a single pair was considered as perfectly antiquated, and as having lagged behind all scientific progress; whilst now, to judge from the applause with which Darwin's theory is received, there is nothing more certain than the inference that both ape and man had, from their single progenitor, a form intermediate between ape and man." On this it has been well remarked by Carl Vogt, "Never was there a more incorrect inference"; and he adds, "No Darwinist—if we must call them so—has either raised that question or drawn the above inference, for the simple reason that it neither accords with the facts nor the consequences."* And yet we find that Professor Huxley contends that the unity of origin of mankind is "overwhelming"; and Mr. Wallace says "Man may have been, indeed I believe must have been, once a homogeneous race." These are, indeed, startling assertions; and we ask supplicatingly when was this state? and why *must* mankind once have been of one race? First of all let us question Professor Huxley, and ask on what data or by what process of reasoning he arrives at the conclusion of a unity of the origin of mankind? We are asked to "extend, by long epochs, the most liberal estimate that has yet been made of the antiquity of man,"† as no form of the doctrine of progressive development could be correct. At that time, three years ago, only about nine millions of years had been claimed for man's antiquity. More recently, Professor Huxley has told us that since man has appeared,—

"The greater part of the British islands, of Central Europe, of Northern Asia, have been submerged beneath the sea and raised up again. So has the great desert of the Sahara, which occupies the major part of northern Africa. The Caspian and the Aral seas have been one, and their united waters have probably communicated with both the Arctic and Mediterranean oceans. The greater part of North America has been under water, and has emerged. It is highly probable that a large part of the Malayan Archipelago has sunk, and its primitive continuity with Asia has been destroyed. Over the great Polynesian area subsidence has taken place to the extent of many thousands of feet,—subsidence of so vast a character, in fact, that if a continent like Asia had once occupied the area of the Pacific, the peaks of its mountains would now show not more numerous than the islands of the Polynesian Archipelago."‡

After being called on to believe in "half-a-dozen Atlantises" we are told that "these rude and primitive families were thrust, in the course of a long series of generations, from land to land, impelled by encroach-

* P. 464.

† *Man's Place in Nature*, p. 159.

‡ *Fortnightly Review*, p. 276.

ments of sea or of marsh, or by a severity of summer heat or winter cold, to change their positions," and concludes the eloquent advocate of a form of Darwinism exquisitely imaginative, "what opportunities must have been offered for the play of natural selection in preserving one family variety and destroying another." And all this must be done to reconcile the original unity of origin of mankind: but not, I contend, on Darwinian principles, which lead to an entirely different conclusion.

We search in vain for any single fact adduced by Professor Huxley to show that man was ever at all different from what he is at present. On the contrary, we find the most positive statements in his own words that "there is not a particle of proof that the cutaneous change thus effected can become hereditary any more than that the enlarged livers, which plague our countrymen in India, can be transmitted; while there is very strong evidence to the contrary." Mr. Wallace, however, tells us that to be a Darwinite on his principles it is necessary to grant us a first condition—"That peculiarities of every kind are more or less hereditary," a proposition which he says "cannot be denied."

But Professor Huxley goes on to make an important admission with regard to the difference in mankind in these words:—"And as for the more important modifications observed in the structure of the brain, and in the form of the skull, no one has ever pretended to show in what way they can be effected directly by climate." So we have *important* modifications in the brain and skull of mankind. It is of course necessary that they shall be "modifications" of some pre-existing type; but it is well to gain the admission that the skull and brain differ in mankind. Let there be added to these the psychological characters, and we may yet have permission and a justification from Professor Huxley to say that mankind is composed of several species. In return for this we may then be able to compliment Professor Huxley on being a logical disciple of his great master.

I agree with the author of the above remarks with regard to the unsatisfactory nature of the supposed process by which climate is said to modify both skull and brain. That "no one has ever attempted to show" how these can be effected by climate is, perhaps, hardly correct. Several such attempts have been made from Hippocrates downwards, but with most unsatisfactory results. Indeed popular writers on this subject appear to be following the reckless speculations of some of our teachers in science. Thus Dr. George Moore, in his work just published on that interesting creature "The first Man," says with charming simplicity and modesty, "How, then, is a Negro produced? we answer in a word, by climate." But, like many other speculators, he does not

venture on any evidence except to give the opinion of Mr. Winwood Reade on the supposed degeneration of the Negroes on the coast, and he very fairly adds to the above statement, "a little patience will be required in adducing the proof."

But let us endeavour to discover the facts on which Professor Huxley bases his hypothesis of unity of origin of mankind. We have quoted from his speculations, and we now turn to his facts. We must then attempt to reconcile these as well as we can.

First of all, what is the evidence for this extreme antiquity advocated for man? I do not intend to enter into the value of the statements I have before quoted with regard to submergence and elevation of these islands and other parts of Europe. I am content to accept the conclusions of the geologist on this point, be they what they may. Granted, then, man existed millions of years ago, how does that assist the hypothesis of unity of origin of man? It is quite true that fossil apes have been already found from India to England, but the remains of man have not yet been found which differ perceptibly from the existing inhabitants of each continent. Professor Huxley admits that both "history and archæology are absolutely silent," and adds, "For half the rest, they might as well be silent for anything that is to be made of their testimony. And, finally, when the question arises as to what was the condition of mankind more than a paltry two or three thousand years ago, history and archæology are for the most part mere dumb dogs." He not only admits that the races of man now existing are "substantially what they are now," but remarks, "it is wonderful how little change has been effected by these mutual invasions and intermixtures," and says, "So far as history teaches us, the populations of Europe, Asia, and Africa were twenty centuries ago just what they are now in their broad features and general distribution. The evidence yielded by archæology is not very definite yet, but so far as it goes it is much to the same effect. . . . Beyond the limits of a fraction of Europe palæontology tells us nothing of man or his works." To sum up our knowledge of the past of man, says the same writer, "So far as the light is bright, it shows him substantially as he is now; and when it grows dim, it permits us to see no sign that he was other than he is now."

I have quoted somewhat at length from this author because it is as well we should see the list of facts on the strength of which mankind are called on to believe in their unity of origin. Not a fact in history or archæology can be brought forward to its support by its most accomplished advocate. We are asked indeed as men of science to have faith, because on some curious process of reasoning it must have been as they teach. We entirely fail to see a particle of foundation either in reason or

analogy for the unity hypothesis on Darwinian principles. We are called on to believe with those disciples in the unity of origin of mankind simply as an article of faith. There is no more foundation for a dogma promulgated on such evidence than for that taught by the majority of theologians in the present day. All we know is, that all science teaches man to be now much as he was when we first catch a glimpse of him at the dawn of history ; and palæontology teaches us that there were fossil apes. Between these two facts all is darkness.

Professor Huxley asks,—“In still older strata do the fossilised bones of an ape more anthropoid, or a man more pithecoïd, than any yet known await the researches of some unknown palæontologist?” “Time will show,” he answers ; but, without waiting to see what time will show, we are called on to believe that man’s place in nature is discovered, and that all the diversities in mankind are “persistent modifications” of some pre-existing homogeneous race.

Some of the processes of reasoning adopted by Professor Huxley are eminently curious and suggestive. Thus in the following sentence which indicates some trepidation as to the soundness of his own views, we read,—“It may be safely affirmed that even if the differences between men are specific, they are so small, that the assumption of more than one primitive stock for all is altogether superfluous.” Now it might be thought that if Professor Huxley had been a loyal disciple of Darwin he would not have been so very particular in exacting such rigid specific characters for all his species. Besides, if differences amongst men are “specific,” it is in vain to plead “they are so small.” As Vogt has well observed,—“the notion of species neither is nor can be fixed,” and that “practically every author conceives it differently.” What are species in London become varieties in Paris. But a still more remarkable mode of reasoning is brought forward on behalf of Darwinism. The science of anthropology is yet destined to demonstrate the truth to Darwinism ! Professor Huxley thinks that the question of the phenomena of human hybridity rests on a very “unsafe foundation,” and that it failed notably in the case of the Pitcairn Islanders ; but “it would not be at all astonishing if, in some of these separated stocks, the process of differentiation should have gone so far as to give rise to the phenomena of hybridity.” First of all we must get this mythical unity of races, then separate them ; if there be any sign of hybridity—that proves the truth of Darwinism ! Hybridity in mankind is thus to be used to establish the truth of Darwinian principles ! The simple facts are not to be taken as they are, but we must accept a unity as an article of faith, and then believe in the truth of “natural selection” on the strength of their gratuitous assumption. Professor Huxley has absolutely put such conclusions

forward. His words are, "satisfactory proof of the existence of any degree of sterility in the unions of members of two of the 'persistent modifications' of mankind, might well be appealed to by Mr. Darwin as crucial evidence of the truth of his views regarding the origin of species in general."

That a man so eminently logical as Mr. Darwin has shown himself in many cases to be, would ever attempt such a thing as calling in the evidence afforded by the phenomenon of human hybridity to support his views on the origin of species in general, is a proposition I cannot at all agree to. But I wish to put it to other disciples of that great naturalist, if they consider that the phenomenon of hybridity in the different races or species of man proves the truth of "natural selection"? Personally I consider with Messrs. Broca, Vogt, Pouchet, and many others, that the existence of "some degree of sterility in the unions" of mankind is proved; but will any one support Professor Huxley in his assertion that Mr. Darwin is justified in assuming that human hybridity is "crucial evidence of the truth of his views regarding the origin of species in general"?

I shall be very sorry for Mr. Darwin's theory if that is the sort of "crucial evidence" it requires for its establishment. Supposing, however, we grant for the sake of argument, that the different species of man produce perfectly fertile hybrids which are indefinitely prolific, this does not prove the unity of man's origin. All naturalists know well enough that different species produce sometimes fertile offspring, while the offspring of universally acknowledged varieties are frequently infertile. What we may believe on such a subject is, that on crossing any two species of man, the same law follows as between any other species of animal. They are very properly called half-breeds, and always partake of the characters of both parents, and never resemble one only.

I have already alluded to Mr. Wallace's opinion that mankind must at one time have been of one homogeneous race, but in justice to that gentleman I must admit that he has very fairly acknowledged that we can only even conceive this by what he calls a "powerful effort of the imagination." His words are,*—"By a powerful effort of the imagination, it is just possible to perceive him at that early epoch existing as a single homogeneous race without the faculty of speech, and probably inhabiting some tropical region." I ought also to state that Mr. Wallace's views were advanced before those of Prof. Huxley. Mr. Wallace claims an equal antiquity for man with his colleague, and remarks,—“These considerations, it will be seen, enable us to place the origin of man at a much more remote geological

* *Journal of Anthropological Society of London*, vol. ii, p. clxv.

epoch than has yet been thought possible." So this author is not satisfied with nine millions of years, or even the large extension of that time demanded on this slight antiquity by Professor Huxley. It was in these remote ages that Mr. Wallace considers man to have been of one race; *before*, to quote the author's own words:—

"He had not yet acquired that wonderfully developed brain, the organ of the mind, which now, even in his lowest examples, raises him far above the highest brutes, at a period when he had the form but hardly the nature of man, when he neither possessed human speech, nor those sympathetic and moral feelings which, in a greater or less degree everywhere now distinguish the race. Just in proportion as these truly human faculties became developed in him, would his physical features become fixed and permanent, because the latter would be of less importance to his well being; he would be kept in harmony with the slowly changing universe around him by an advance in mind rather than by a change in body. If, therefore, we are of opinion that he was not really man till these higher faculties were developed, we may fairly assert that there were many originally distinct races of man; while, if we think that a being like us in form and structure, but with mental faculties scarcely raised above the brute, must still be considered to have been human, we are fully entitled to maintain the common origin of all mankind."

Now by a "powerful effort of the imagination" can we conceive the possibility of there ever existing a "being like us in form and structure, and yet with mental faculties scarcely raised above the brute?" Mr. Wallace takes back the unity hypothesis much further than Professor Huxley, for he contends that we must go back for this to a period when the animal we now call man had not speech, moral feelings, or even the nature of man. If we like to consider such a creature MAN, as Mr. Wallace is inclined to do, then he says we may be "fairly entitled to maintain the common origin of all mankind." If, however, this creature without the "nature of man" was a brute, Mr. Wallace allows, "we may fairly assert that there were many originally distinct races of men."

I maintain that the mythical creature described by Mr. Wallace has no right to be called man—not possessing his chief distinguishing characteristics, and if this be acknowledged, then Mr. Wallace is an advocate for "many originally distinct races of man." But Mr. Wallace, after asserting that mankind must at one time have been of a homogeneous race, and then going on to show that it was long before he had the "nature of man," follows up his reasoning by contending that the influence of the mind has stopped the process going on before the advent of intelligence, and that this one homogeneous race is now again reverting to its original state. The human family have been as it were out on an excursion. Speaking of the diverse

species of men as man, he says, "his mental constitution may continue to advance and improve till the world is again inhabited by a single homogeneous race, no individual of which will be inferior to the noblest specimens of existing humanity."

Such are the views of two of Mr. Darwin's most eminent disciples. Are these conclusions warranted by Mr. Darwin's hypothesis? Taking Mr. Wallace's view of the case, does the logical application of the theory of "natural selection" lead to the conclusion that existing mankind is gradually becoming of one race? I do not ask if this is a fact; that is not the point in question. But does the application of Darwinian principles lead to this conclusion?

Professor Huxley, we have seen, proposed to establish the truth of Darwinism by finding sufficient difference in the races of man to exhibit the phenomenon of hybridity; but his colleague will disappoint him if he does not soon do this, for we are again reverting to one homogeneous race. I wish now emphatically to ask which, if either, of the views of Mr. Darwin's disciples is in accordance with his own theory? For my own part I must confess that I think neither the views of Professor Huxley nor of Mr. Wallace are logical results of the working out of the principles of natural selection as propounded by Mr. Darwin.

Another curious application of a portion of the theory of natural selection is that propounded in a work by Mr. Andrew Murray.* Mr. Murray's speculations are more extraordinary than those of the more thorough followers of Mr. Darwin. He supplies anthropologists with some wonderful information in these words:—

"We have seen a race of man formed under our own eyes, the Anglo-, or rather the Europeo-American nation, as distinct and well-marked a race as any other; and yet the change has been effected over the whole region in which it occurs at the same time. The race has apparently not been produced by an American being born from an Englishman, and then by his propagating young Americans, but hundreds of thousands have had the same impress affixed upon them over the length and breadth of the land at the same time."

After telling us that he has recently become nearly a convert to Darwinism, he goes on to say:—

"Now, according to the reasoning in which I trusted there should have been no Anglo-American nation, the type should have been frittered away in a thousand different directions, a congeries of all kinds of different degrees of change should have been jumbled up together, leaving no distinguishable characteristic by which to know the American from any other nation. And yet, there he is, a nation, *per se*; known to *Punch*, known to passport officers, known to ourselves, easily identified, easily figured, and easily caricatured."

* *The Geographical Distribution of Mammals*, 1866.

Now it is perhaps useless to attempt to argue seriously with an author who uses the words "race," "nation," and "type" as convertible terms. Nor need I dwell on the opinions of a writer who seems to have taken his knowledge of anthropological types from *Punch*.

This author, however, tells us seriously that the Europeo-American people are "as well marked a race as any other." Such statements coming forth under the garb of science are really melancholy. Nor are the author's views any improvement on those propounded by other of Mr. Darwin's disciples. We can as easily believe in the change being effected by a miracle, as agree with the author that the change in the Americans was "affixed upon them over the length and breadth of the land at the same time."

But what makes this matter somewhat serious, is the fact that the author's change of opinion with regard to Darwinism is based on the change observed in the American people. He absolutely goes so far as to say of the passage I have quoted, "Such an *argumentum ad hominem* is hard to get over."

The author having informed us of the fortunate circumstance in the present state of science, that he is "not greatly concerned to explain the exact mode of operation of the laws evolving new species," goes on to say: "I have come to the conclusion to accept the fact that nature can produce a new type without our being able to see the marks of transition, and that she can alter a whole race simultaneously without its passing through the phase of development from an individual in whom the entire change was first perfected."* Such is the author's creed, and he no doubt believes in it if, like myself, he does not understand how such a thing is possible.

To Mr. Murray, however, belongs the honour of being the first man of science who has come forward and declared that there is a fact in historical anthropology which lends any countenance to the truth of the theory of development by "Natural Selection."

The change observed in Europeans who have settled in America is both a delicate and difficult subject. I do not attempt to deny the change in many cases; but my researches and observations lead me to believe that the change is not of that uniform character which the author asserts. On this point, however, I speak with some diffidence, as I have not been in America. I have, however, failed entirely to see the uniform change described by Mr. Murray in those Americans who have come under my own observation. On the contrary, I am of opinion that the types at present existing in America are as diverse as those now existing in those portions of Europe from which they originally departed.

* P. 6.

I have never yet seen any reason to change my views, which I imbibed from the late Dr. Knox, and which are accepted by many other modern anthropologists, that the change observed in the children of those Europeans who have settled for some generations in America is to be explained by the hypothesis of degeneration or deterioration. The real significance of the change we often observe is a very fair question to discuss; but to assume we have as yet a new type, or even a new race, "as well marked as any other," is utterly unworthy of serious consideration.

Mr. Murray is not content to offer to the world his own speculations, but undertakes to pronounce the views held by Dr. Knox to be "the dream or fancy of a clever but eccentric man."* Such a remark requires no comment from me. This author also tells us that Dr. Knox was "not, perhaps, too scrupulous as to the authenticity of his facts;" but I search in vain through the writings of that author to find such reckless statements as those advanced on behalf of Darwinism by Mr. Andrew Murray.

I see from some recent publications that such speculations as those to which I have called attention are just now finding favour with a few more or less scientific men on the other side of the Atlantic.

Thus, Mr. Hudson Tuttle, who is not unknown as an author, has just written a work entitled, "*On the Origin and Antiquity of Physical Man scientifically considered.*"† The addition of the last two words are certainly much to be commended to other writers on the origin of man. In addition to the above, we have also the following important statement of what the work contains in these words: "Proving man to have been contemporary with the mastodon, detailing the history of his development from the domain of a brute, and dispersion by great waves of emigration from Central Asia." In the following sentence we find the result of Mr. Wallace's teaching: "Applying the principles which govern the production of species of animals to savage man, to whom the name *brute*, or *man* are alike applicable, we shall endeavour to show how from this savage sprang the various races into which mankind are divided." The second conclusion of his work‡ must be eminently satisfactory to all Darwinians, *if true*: "There is more difference between the lowest man and highest Simiæ than between the highest and lowest Simiæ, or between the lowest and highest man. There is a perfect gradation in bony structure and in brain." The third conclusion is equally startling: "History unites mankind at a common source; locates their origin where the highest members of the animal kingdom are found." The fourth is still more remarkable: "The 'struggle for existence' indicates the

* P. 9.

† Boston, 1866.

‡ P. 257.

process by which the progress observed might have been evolved." We find, too, in this work it is stated by this last attempt to apply Darwinism to account for the origin of man, that "the inductions of science beautifully harmonise with the sacred traditions of mankind." I have no wish, however, to make either Professor Huxley or Mr. Wallace responsible for all this nonsense. I merely quote it as a caution to men of science against promulgating speculations respecting the origin of mankind before they have the slightest data on which to found them.

In France, happily, such speculations are estimated at their true value. The anthropologists of that country know too well the business and the methods of science to be found wasting their time in promulgating dreams respecting man's origin. They are content, with the majority of anthropologists in this country, to wait in patience for the discovery of the "some unborn palæontologist" spoken of by Professor Huxley.

In Germany, too, I am glad to see that a protest is being raised against the premature speculations of some of Mr. Darwin's disciples. In the new German periodical for anthropology just started, Professor Ecker in his introduction has alluded to that subject in these terms.* Speaking of the theories of man's origin, he says:

"This problem will have to be solved partly by the anatomist and partly by the psychologist. On the one hand, there will be requisite the most careful comparative anatomy of the body, especially the minute structure of the brain; and, on the other hand, the analysis of psychical functions. However much may have been done in this direction, much more remains to be done before we can indulge in any hopes to solve these final questions in relation to the genetic connection between man and the anthropoid animals, which have by the followers of Darwin been proposed too early. Whether palæontology and the theory of development will throw some light into this obscurity remains yet to be seen. But surely it is not the task of a serious science prematurely to discuss questions to answer which we lack materials."

It is to be regretted, however, that there are many writers in Germany who have recently written as though the question of man's place in nature were settled. The language employed by these writers does not differ greatly from what we have sometimes heard used against those who differ from them in this country. An illustration of this will be found in a work recently published by Dr. Reich. It will be seen from this, that we must not dare to classify man in a new order or kingdom, but must accept the classification of Linnæus as developed by Professor Huxley, or we shall be called some very

* *Archiv für Anthropologie*, Nos. 1 and 2, 1866.

hard names. Dr. Reich says: "What man is, and what position he occupies in nature, are questions that have at all times engaged the attention of anthropologists; theologians, philosophers, and jurists have also discussed it with but little profit to the science."

"Numerous ancient and modern authors have written long treatises concerning the pretended elevation of man above other animals, by drawing parallels between them, showing how far removed man was even from the ape. The talked-of specific difference between man and brute ascribed to the former an immortal soul, to the latter a mortal soul, and denied to animals all mental qualifications. They even went so far as to assign to man a separate kingdom by the side of the animal, vegetable, and mineral kingdoms.

"But comparative anatomy and physiology, chemistry and natural philosophy, have established what has been surmised by great minds, and disposed of the dreams of false apostles of science, and put an end to the miserable inferences of such incompetent observers."

After quoting from the author of *Man's Place in Nature*, Dr. Reich goes on:

"Thus far Huxley. His words sufficiently indicate the position man occupies in the animal world. He shows that man stands not above the animals, but is himself an animal, and differs from his cousins, the apes of the old world, less than these differ from the other apes. This is a cold shower-bath for human pride! * * *

"Comparative anatomy, the guiding star in the knowledge of organised beings, has shown with mathematical certainty, that there is no member of the animal kingdom which is separated by a gulf from what is next to it; everywhere there is an uninterrupted transition. Nature takes no leaps; this is the great truth we ought always to bear in mind. Allied to comparative anatomy, physiology, by throwing light on the functions of the organs and the development of the individual, furnishes the key to the explanation of phenomena which, when not comprehended, engender in the ignorant, thoughts of mysterious forces, and other ideas of a heated imagination."

Happily, such teaching as this does not at present exert any great influence in this country. I must leave it for the audience to decide which are the false apostles and suffer from the effects of a "heated imagination;" those who assert that anatomy has shown with mathematical certainty that there is no gulf separating the different members of the animal kingdom; that nature takes no leaps; and that we know all the forces at work in nature: or those who, like myself, do not see sufficient evidence to establish either of these positions. With regard, however, to the charge that we must believe in mysterious forces if we do not accept the theory of natural selection, I must enter my protest against such reasoning.

Is the theory of "natural selection," as propounded by Mr. Darwin, sufficient to explain the origin of either races or species of man? I am

fully aware that much of the dissatisfaction which exists amongst English anthropologists with regard to Mr. Darwin's theory is greatly to be accounted for by what I contend to be the illogical manner in which that naturalist's disciples have attempted to work out that theory when applied to the origin of man as to comparative anthropology. Many of the present objections to Mr. Darwin's theory will be removed when it is worked out in the manner I have hinted.

At present, however, we are quite unable to show the causes which produce the formation of the different races of which the different species of man is composed. I cannot think that any advance can be made in the application of the Darwinian principles to anthropology until we can free the subject from the unity hypothesis which has been identified with it, especially by the influence of Professor Huxley. Professor Carl Vogt is doing all he can to show the fallacy of the unity hypothesis on the continent; and, as a logical Darwinite, well points out that the human type is not approached by any one ape in all points. He says,—“This much is certain, that each of these anthropoid apes has its peculiar characters by which it approaches man If, in the different regions of the globe, anthropoid apes may issue from different stocks, we cannot see why these different stocks should be denied further development into the human type, and that only one stock should possess this privilege. The further we go back in history the greater is the contrast between individual types, the more opposed are the characters.” This author thinks there is a tendency to unity; but he gives an adequate agent for such a supposed change in the fusion of the different species, viz. intermixture. I am quite willing to grant that the cause is adequate; but, as I interpret Darwinism, I consider that although some races may become diminished, there are at the same time others in course of formation. Do we not even now see in different classes of men a tendency to perpetuate their own characteristics? In fact, a coming unity rests on about the same evidence as a past unity.

Andreas Wagner not long since made some very sensible remarks on the absurdities which many distinguished naturalists have uttered, from Oken downwards, when they venture to demonstrate the genesis of man. He well remarks,—“It is therefore better to admit the insufficiency of our capacity, than to make ourselves ridiculous by forming hypotheses on processes which are hidden from us.”

Dr. George Moore has recently well observed,—“Man as he is has not yet been accounted for by philosophers.” He, however, goes on to say,—“If they do not possess power of mind equal to the explanation of a fact so common among natural phenomena as the present existence of themselves, the first step towards a correct anthropology

has not been taken." Now the question of the origin of man is not the *first*, but the *last* problem of anthropological science. He says that before we go further we ought, "from a knowledge of their own qualities as human beings, to say why they were made, who made them, and what is likely to become of them." In fact, that we ought to learn to read before we learn the alphabet. Nothing can be more deleterious to the cause of truth and science than that such views should go forth to the world unchallenged by men of science.

But while differing on some points from Professor Huxley, I feel bound to add that I for one do not join in the outcry which has been raised in some quarters against the manner in which he has studied and described man. On the contrary, I admire the honesty and moral courage he has displayed. I have only to complain of what I conceive to be his incorrect reasoning and his occasional dogmatic assertions.

No one can have read with greater feelings of indignation than myself, a charge which Dr. Moore has made more than once in his recent work *The First Man, and his Place in Creation*, that Professor Huxley "had undertaken his researches and assumed his character of seer and prophet on the ground of prejudice against Christianity." Such a charge is altogether too contemptible for Professor Huxley to notice; and I feel sure that every scientific man will agree with me in protesting against such a base insinuation. To impute motives for scientific opinions is not only unscientific, but most ungenerous.

It may not unnaturally be asked by those who hear my opinions on this subject, why I have undertaken to contest so strongly the views put forward by some of Mr. Darwin's disciples, when I accept the great principle of natural development to explain man's origin. The question of man's origin only presents itself to me in the two-fold aspect of plurality of origins in the way I have hinted, or of unity of origin in the manner advocated by Professor Huxley and Mr. Wallace.

If those eminent disciples of Mr. Darwin can demonstrate to me by fair argument that their views are most in accordance with reason and science, I shall at once relinquish my own.

In conclusion, I beg to express a wish that, in consideration of the conflicting views held on this subject, Mr. Darwin himself may be induced to come forward, and tell us if the application of his theory leads to unity of origin as contended for by Professor Huxley; and if, also, taking Mr. Wallace's views fully into consideration, and applying his own theory to Mr. Wallace's premisses, it then lends any support to the theory of a coming unity.

THE EARLY RACES OF SCOTLAND AND THEIR MONUMENTS.*

No country has a richer literature on historical anthropology than Scotland. Gordon and Chalmers have given valuable records of its antiquities; and the old statistical account of Scotland has preserved the remembrance of old customs and legends, as well of early monuments. More recently the action of the Society of Antiquaries of Scotland, led by such men as Simpson, Stuart, and Robertson, has introduced a more critical method of examination; and not a little has been revealed by excavations into remains, which for ages had been buried up. Dr. Daniel Wilson's able and elaborate *Prehistoric Annals*, though somewhat fanciful in his speculations and rhetorical in his style, has invested Scottish antiquities with a popular interest, for he has skilfully combined a number of scattered facts, and extracted from them some knowledge of the by-past ages. Lieut.-Col. Forbes Leslie's work on the *Early Races of Scotland*, which has recently appeared, is another important contribution to Scottish anthropology.

The title of the work is rather a misnomer; for there is little in it regarding distinctions of race. Indeed, the leading questions on the subject seem to be purposely excluded. Naturally, as anthropologists, we turned to hear the views of an accomplished and learned writer on the two pre-Celtic races, said by Dr. Wilson to have inhabited Scotland; but we are only told, "whether the Celtic superseded in Britain an earlier race, or were themselves the dimly-shadowed-forth earliest of prehistoric occupants of the soil or the forests, cannot yet be determined." No information do we gain respecting the crania found in Scottish tombs, nor indeed does Col. Leslie indicate the physical characters of the race whose history he examines. We obtain no help from him to decide between Lubbock and Wright as to the age of the leaf-shaped bronze swords; nor does he give any judgment whether Scotland had its ages of stone and bronze and iron. Perhaps, however, our author might consider that he had so much to say on other aspects of anthropology, that he might pass by questions not yet ripe enough for determination. Notwithstanding, there is much in his work to illustrate the historical division of anthropology, for he enters fully into the written records of the early inhabitants of Scotland, and carefully gathers up the scattered

* *The Early Races of Scotland and their Monuments.* By Lieut.-Col. Forbes Leslie. Edinburgh: Edmonston and Douglas. 1866.

notices of its mythology, superstitions, traditions, symbols, and inscriptions, which indeed are as important to the historical anthropologist as are fossilised bones to the geologist, for they enable us to read the psychical characters of early races.

Col. Leslie tells us, that his great object in examining the memoirs of the races occupying Caledonia from the earliest ages to the end of the sixth century, was to discover the design of the Caledonian sculptures; and the first sentence of his work indicates the predominant idea by which he has been guided. In the fourth century, B.C., Hecataeus mentions an island over against Gaul, as big as Sicily, under the arctic pole, inhabited by Hyperboreans, with a rich and fruitful soil and temperate climate, the inhabitants of which worship, above other gods, Apollo, who had there a stately grove and renowned temple of a round form, beautified with many rich gifts; the inhabitants had a language of their own, and had been visited by Greeks who had made divers gifts inscribed with Greek character. Our author thinks this island was Britain, the temple Avebury, the people Celts, the priests Druids, the god Belénus; and that at this period Britain and Gaul had a common language and religion; and, in accordance with this view, early monuments and inscriptions, old superstitions and usages, are traced to the Celtic race.

In his account of the Races of Caledonia, Col. Leslie considers the mass of the early population to have been Celtic; and, guided by Dr. Latham, he formally propounds his views in eleven propositions. At the beginning of the historic era he finds Gaels in northern Britain, in Ireland, and in the Western Isles; these were the first immigrants from the continent of Europe; and had originally come from the east, through Syria, Egypt, along the north-east coast of Africa, and to Spain and Gaul, where they split into two branches, one of which ended in Britain. Another immigration, the Britons, followed from the same source, taking a more direct course through Scythia, Scandinavia, and across the German Ocean to Britain; and, pressing on the earlier immigrants, drove them northward and into Ireland. Stone monuments in the Dekkan in India, in Persia, Syria, Italy, Spain, and Armorica, similar to those found in the British Islands, are adduced as confirmatory of these general views. The Gaels, however, appear at a subsequent period split up into several distinct tribes; there were Albannaich, or the Caledonians, or Picts in Scotland, and identical with these, the Cruithne in Ireland; there were the Scots chiefly occupying Ireland, and, in smaller numbers, a portion of the south-west of Scotland; and besides these, there were the Attacots, of whom little is known, but who are spoken of by St. Jerome as cannibals, and by Ammianus Marcellus as warlike.

The historical notices of the Picts are very scanty ; and their sudden and strange disappearance from the page of history has puzzled Scottish and Irish historians, and given rise to bitter controversy. Were they Gaels or Scots ? Were they annihilated or absorbed, or were they merely an existing tribe under a changed name ? They are first referred to the third century, and Eumenius the orator, in 309 A.D., speaks of "*Caledonii et alii Picti*," leading us to infer that the Caledonians were a tribe of the Picts. Beda, writing in 730 A.D., states that there were five languages in Britain : the British, Pictish, Scottish, English, and Latin ; and as there is no mention of Caledonian or Gael, and, as in another part of his history we learn that the Picts came from the north, it may be conclusively inferred that the Gaels, Albannaich, or Caledonians, were indicated by the name Pict, until that name became superseded or replaced by Gael. Scots had existed from an early period (from at least 360 A.D.) in the south-west part of Caledonia ; but in the beginning of the sixth century, receiving an important accession from Ireland—important, not for numbers, for the whole band consisted of only one hundred and fifty, but, from the rank and ability of the leaders—they founded about Argyleshire a kingdom dependant at first on the Dul-raid Scots of Ireland ; but which, increasing in power, became independent, and its sovereign in the ninth century achieved the conquest of the Pictish kingdom, and gave their own name—that of Scotland—to the whole of North Britain. Notwithstanding this change of dynasty, the language continued to be Gaelic.

"It does not seem," says our author, "now to be maintained that what is sometimes called the Scottish Conquest was otherwise than the royal race of the Picts being supplanted, possibly after they and their adherents had been defeated by their relations and rivals of the Scottish royal race in the ninth century. Neither can it be successfully urged that it was after this event, in A.D. 843, when the Scots of the Irish branch obtained the kingly power in the south and east of Caledonia, that the mountains, rivers, and remarkable places of these fertile parts of the country first received their Gaelic names, and that the inhabitants of these districts then and at once adopted the Gaelic language."

Col. Leslie assigns reasons for believing that the Phœnicians were, to a limited extent, an element in the early population of Britain, and that in a more considerable degree they influenced the manners and customs of its Celtic inhabitants. What the Druids were to a former generation of antiquaries, the Phœnicians are now to modern speculators ; residuary phenomena—things which cannot be accounted for—are referred to Punic influence or colonisation. Col. Leslie is, however, more moderate in his views, which are chiefly based on a

supposed similarity of the worship of the Phœnicians and of the ancient Britons. Sun or Baal worship were, he thinks, common to both; yet, admitting this to be the case, which, indeed, is doubtful, the inference by no means follows; for almost all nations who have advanced beyond pure Fetichism, have more or less revered and feared planetary influences. Professor Nilsson, in a recent Memoir on Stonehenge, has carried this notion to an extravagant length; according to him, Stonehenge was the renowned or remarkable temple dedicated to Apollo; and such monuments in Britain were Phœnician, and connected with the rites of Baal, like their congeners at Tyre, and in the Valley of Bethel. Doubtless the Phœnicians, from a very early period, traded with the Britons for tin, and gave in exchange their own manufactures and the productions of other countries, including probably the crude bronze, out of which the Britons made their leaf-shaped swords and other weapons and instruments, and the glass beads and armlets found in dwellings of the so-called bronze age. But beyond commercial interchange, there appears no further connection or influence; no evidence of colonising; no Phœnician inscription has been found in Britain, nor any trace of the Punic language in British nomenclature. Professor Nilsson refers to the inscription on the Newton stone in Aberdeenshire as Phœnician; but for this there is not evidence. Col. Leslie is more cautious, and passes no judgment on this inscription, which has been a sad puzzle to scholars, and has given rise to such a diversity of explanation as to present the appearance of a burlesque on archaic philology. Dr. Mill says the inscription is Phœnician, to Eshmun, the god of health. Dr. Davis also regards it as Phœnician, but to Atalhan, son of Puzach. Another authority makes it Celtic, indicating a boundary stone. Mr. Thomas Wright tells, in the most confident manner, it is Latin, to Constantinus. Mr. Brown says the characters are Egypto-Arabian, giving a list of names; and Dr. Moore writes a long and learned dissertation to show that the characters are Arian and the language Hebrew, and that the inscription is to Attie, who is with the dead. Nothing of value can be extracted from such contradictory expositions.

The speculative theories of Dr. Wilson and Professor Nilsson, and some others, have tended to dethrone the Druids and reduce the Celts to insignificance. The relics which were formerly attributed to the people inhabiting Britain, when Cæsar invaded it, are transferred to mythical races who lived long before in the dark ages of the past. These notions are based on craniological evidence only; but however much we value careful determinations of cranial race characters, we concur in the opinion of Dr. Thurnam, "that unless archæological

evidence could be added to that of cranial developments, the question of age must be left very much in the dark." There is a strong presumption from authentic history, that the antiquities associated in Britain with the Brachycephalic men were the Celts of the pre-Roman period. We certainly find them at the dawn of history to be numerous and warlike, and so far advanced in art, as to have iron weapons and war chariots; and in civilisation, as to have established governments—a system of polity, and learned men to administer law and conduct religious ceremonies. Could such a people, who had doubtless existed in Britain for many centuries, pass away without leaving many and marked traces behind them? Col. Leslie brings us back to history, and in his chapter on religion gives a fair statement of what it tells us of the Druids and Druidical worship. He endeavours with much acuteness and learning to trace to Druidism many superstitious usages, which existed a few generations ago, or which still continue to exist in Scotland; and though some of these may with more probability be referred to other sources, yet his dissertations contain much that is curious and instructive. Witchcraft descended, he supposes, from Druidical superstitions and practices. That the life of one man could be redeemed by the life of another was a belief among the Gauls; and a similar belief existed in Scotland in the sixteenth century, and influenced the ceremonies of witchcraft; Marianne M'Ingaruch, a notorious witch, in 1588, pronounced that to save the life of Baron Fowlis his next younger brother should be sacrificed.

Col. Leslie thinks that there is clear evidence of the prevalence of solar and planetary worship from Dondera-head in Ceylon to the Himalaya mountains, and from the borders of China to the extremities of Western Europe and its islands. The Parsees in British India still worship light, symbolised in the sun and fire. The religion of Gautama Buddha, which more than twenty centuries ago was established in Ceylon, has not eradicated the *Bali*, planetary worship, which co-existed with the *Naga* or snake worship, and with a belief in the genii of fountains and streams, trees and forests, rocks and mountains, and in malignant demons producing various forms of pestilence. The heathen inhabitants of Britain, according to our author, worshipped an equally numerous and nearly identical accumulation of objects. *Bel*, in Cingalese, signifying power; and *Baal*, *Bel*, Belus in Assyria, Palestine and Phœnicia, implying dominion and equivalent to Supreme God, are used as expressive of solar and planetary worship. As evidence connecting Britain with Baal worship, Col. Leslie adduces the names of the two earliest British kings known to history, Cassibelan and Cunobeline, both of whom by Nennius are simply called

Belinus. Doubtless superstitious usages originating in sun worship lingered long in Britain. From the Penitential of Theodore, Archbishop of Canterbury, we learn, that in the seventh century women passed their children through the fire and exposed them on the housetops to restore or insure their health; and by the laws of Cnut the worship of the sun was forbidden.

"In Scotland there was a practice described by an eye-witness, that after a child was baptised, and on the return of the party from church, the infant was swayed three times gently over a flame; or, according to another authority, the child was handed three times across the fire. In Perthshire, in cases of private baptism, there was a custom of passing the child three times round the crook which was suspended over the centre of the fire."

Such practices closely resemble the usages of the Jews and Canaanites in passing children through the fire to Baal or Moloch, to whom, indeed, they were sometimes sacrificed as burnt-offerings. The most distinctive relics of sun worship are, however, seen in Beltane, the fire of Bel or Baal, which was kindled in Scotland, it is supposed in honour of this God, on Midsummer eve, afterwards called the vigil of St. John, on All-Hallowe'en (31st of October); and on Yeule, which is now Christmas. These fires were kindled on hills and conspicuous places in level districts, not only in Scotland, but also in Ireland and Cornwall. In the north of England *bonfires* were lighted by corporate authority in the market places of borough towns on St. John's vigil; and we have seen records of yearly payments of such fires down to the beginning of the eighteenth century. At Callander, in Perthshire, the celebration of the Hallowe'en mysteries is remarkable; and suggests what may have been one object of "the separate" monoliths forming a circular fane. The Bel fires were lighted on the rising grounds and villages, and the ashes left from the burning were collected in the form of a circle, near the circumference of which a stone was placed for every person of the several families interested in the bonfire; and if any stone was moved out of its place before morning, the person, whom it represented, was devoted to *Fey*, and it is supposed would die within twelve months from that day.

Notwithstanding the number of interesting illustrations Col. Leslie has gathered of the remains of sun worship in Scotland, it is far from being proved that they have been derived from the Druids. Indeed, historical evidence indicates that sun worship, if it existed at all amongst them, held a very subordinate place in their mythology, and that the remains of sun worship in Britain are of Teutonic origin. Cæsar tells us that the chief god whom the Britons worshipped was Mercury, the inventor of the arts; Apollo came after him, and he was not recognised as connected with the sun or any planet, but as the

curer of disease. More important still, in reference to this question, is the account Cæsar gives of the gods of the Germans—a race who in after times modified and to a large extent formed the religious ceremonies and superstitions of Britain. Of them, we are told, that they had no Druids, and that they reckoned among their gods those only who could be seen, such as the sun, the moon, and fire.

Besides, however, planetary worship, Col. Leslie finds traces in Scotland of the worship of spirits, atmospherical and terrestrial, arising from the fear or reverence of portentous phenomena, and resembling the adoration given to such objects by the ancient Hindus of the Vedas, and the earliest inhabitants of Tyre and Sidon; but he might have added, that such reverence and fear are common to almost all nations in their early stages of civilisation. The Spirit of Ethereal Fire, a female deity, named *Cailleach Vear*, has a conspicuous place among the legends of the western Highlands; her residence was on the highest mountains, and a great stone—*Cailleach Vear*, the mountain of thunder—preserves her name. *Water-Kelpies* were “angry spirits of the waters,” and when heard in the storm, wildly neighing or hoarsely bellowing, they presaged misfortunes; or emerging from the sea or lake in the form of a horse they tempted the unwary to mount on their back, that they might dash with the rider into the depths of the flood. The *Spirit of the Earth* had set aside for him minute portions of untilled land, once numerous in Scotland, called “the gudeman’s croft”. Sir James Y. Simpson, Bart., stated, in 1861, that, not many years ago, a relative of his, on taking possession of a farm he had bought, cut off a small triangular corner from a field, within a stone wall, as the “goodman’s croft”, an offering to the Spirit of Evil, in order that he might abstain from ever blighting or damaging the rest of the farm. Col. Leslie remarks—

“The Celts judging from a few recorded facts and the remains of many superstitions, had an infinity of local and inferior genii. Of these, some were supposed to be benevolent, but the majority were considered mischievous. The number of elves or imps, in Gaelic, is of itself a proof of a Celtic belief in a crowded pantheon. Not only mountains and hills, rivers and fountains, had their peculiar deities, but even at the present day, many a green mound in the vales, or bright sequestered spot in the mountains, is shunned by sturdy peasants who would not fear the hostility of any mortal. The prefect of a Gaulish cohort, who erected an altar on the limits of Caledonia, has summed up, in small compass, the whole invisible world of the country. His altar is dedicated ‘To the Field Deities of Britain.’”

Pagan ceremonies, connected with the fountains and wells, have been more prevalent and continued longer than any other. Gildas refers to the worship of rivers and fountains in Britain; and both

civil and ecclesiastical laws were directed against it in Gaul and Britain. Col. Leslie finds such ceremonies particularly cherished in all these places, where a Celtic population had the most enduring and predominating influence, and he would, indeed, connect them with Sun worship. On Beltane day, sacred fountains were approached *deasil*, or sunwise, and in the same direction would a procession go three times round it; offerings were then made to the Spirit of the Fountain by hanging rags of clothing on trees and bushes, or by casting a metallic body into the fountain. We have ourselves seen the bottom of a sacred well, at the base of a hill in the north of England, crowded with crooked pins; and at the present day, every maiden or young man, passing that well, drops into it a crooked pin and inwardly breathes a wish, in the full belief that, before a year has run its course, the wish will be realised. Some few generations ago there was a gay procession to this well on May morning, when the ceremony was more formally and publicly performed.

Colonel Leslie takes a wide survey of ancient stone monuments, describing not only those in Scotland, but others in England, Ireland, Armorica, Palestine, and India. He adopts the French nomenclature, which is more definite than our own, and calls the monolithic stone circles *cromlechs*, and he applies the term *dolmen*, a table stone, to those singular structures which in England are called *cromlechs*, and by some Druid's altars. Besides these there are, *menhirs*, long stones; *pulvens*, monoliths of less size; barrows, *cistvaens*, and *galgals* or cairns. There is still much division of opinion as to the age, the builders, and uses of these stone monuments. Of great antiquity they doubtless are; and no one is inclined to refer them to a period much later than the Roman invasion, but some would carry their age back far beyond the time when Phœnicians were supposed to trade with Britain, and influence the manners and religion of the people, even to that mythical period when a low type of man, ignorant of metals, inhabited the island. Sufficient evidence there is to prove that they were pre-Roman. Stonehenge, probably one of the most recent of the circular fanes in Britain had been constructed during what is called the bronze age; for out of one hundred and fifty-two interments which have been examined around Stonehenge, thirty-nine of them contained bronze objects; and in a hundred and twenty-nine cases the body had been burnt. It would seem too, that the builders were brachycephalic, the round-skulled men, who, according to Dr. Thurnam, were buried under round barrows, and who, so far as we at present know, were the race occupying the central, and certainly the northern parts of England when Cæsar invaded it. Of the purpose of such monolithic structures there is less certainty. Colonel Leslie

finds them in India, Persia, Palestine, and Africa, as well as in Europe; those in the Dekkan are remarkable, where they are dedicated to the god Vetal or Betal. One has a circular space, twenty-seven feet in diameter, enclosed by twenty-three stones, three of which are three feet high, and the others smaller. Each of these stones is marked near the top with a large spot of red paint, typical, it is believed, of sacrifice. While Colonel Leslie considers the stone circles in Britain to have been temples used by the Druids for religious worship, he also regards them as places for judicial and inaugural purposes. So late, indeed, as May 2, 1329, there is a record of a court held "apud stantes lapides de Raine." But though it may be admitted that the larger stone circles were used for these objects, many of the smaller ones were places of sepulture. Our author might have derived important information from recent researches by excavations. Several were excavated in the island of Arran, and others near Shap in Westmoreland, and found to be sepulchral. A different result was obtained from the excavation of an oval stone circle, three hundred and forty feet in diameter, at *Three Stone Burn* on the flanks of the Cheviots in Northumberland; there were no interments nor any indications of a sepulchre, but charred wood was found on the surface in several places, and a fragment of a flint knife with two cutting edges. Colonel Leslie gives a full account of the most important circular fanes; and he adduces one striking argument in favour of the eastern origin of such temples. He says:—

"The areas of temples, open, and only designated by masses of rock, with their long avenues of unhewn columns of stone, are well fitted for religious ceremonies and processions, and for judicial and civil purposes, in a warm climate, and under the blue sky of tropical countries. The reverse is the case as regards the cloudy atmosphere and uncertain weather so prevalent on the promontories of Armorica and in the British Islands, and is a very strong argument for considering that the pagan fanes of these countries were modelled from Asiatic originals. Nations, whether tempted or impelled onwards, or migrating in obedience to some law of our nature which has led to the diffusion of mankind, would doubtless preserve the form of their ancient places of worship and assembly, and circular temples defined by small pyramidal shaped stones, such as may often be seen extemporised in the Dekhan of India, could always have been prepared when the migrating horde halted on a journey or rested for a season."

Our author's theories regarding *Dolmens* are, perhaps, the most unsatisfactory in the whole work, for too little use has been made of the facts elicited by explorations. He considers them as altars for sacrifices; but the weight of evidence tends to prove that their primary use was that of sepulture. However we may differ from the author

on this and several other expositions which he gives, we respect the learning, the candour, and clearness of description, which give value to his account of menhirs, dolmens, earth-fast stones, perforated and rocking stones, cairns, barrows, and Caledonian strongholds.

The great object sought by Col. Leslie, in his various elaborate investigations, is to elucidate the meaning of the Caledonian hieroglyphics or sculptured stones. There are three kinds of sculptured stones in Scotland, each of a different age. There are the Northumbrian symbols of which we recently gave an account in our review of Mr. George Tate's memoir on them. Though spread more or less over the whole island from the Orkneys to Devonshire, and into Wales and Ireland, their centre, as it were, is in Northumberland, where they occur in the greatest number and variety of form; in Scotland they are chiefly in Argyleshire, where the Dalraid Scots had a kingdom. As Mr. Tate remarks, "their wide distribution over the British Islands evidences that at the period when they were made the whole of Britain was peopled by tribes of one race, who were imbued with the same superstitions, and expressed them by the same symbols." These are most probably the oldest sculptures in Britain, and as yet the typical forms have not been found in other countries. They are associated in Northumberland with a brachycephalic race, and with relics of the so-called bronze age. The second class of sculptures, which are incised on unhewn monoliths, are more limited in their distribution, being confined not merely to Scotland, but almost entirely to its North Eastern part, where the Pictish kingdom flourished before it was overthrown by the Scots. There are five principal forms:—

1. Two circles or groups of concentric circles connected by curved lines, and crossed by a Z figure, with sceptre-like ends.
2. A crescent crossed by a V figure with similar sceptre-like ends.
3. A serpent crossed with the Z figure.
4. An upright rectangular figure crossed by the Z sceptres.
5. A mythical animal, generally supposed to represent an elephant, and considered by Colonel Leslie, but on very insufficient grounds, to be the *Asiatic* elephant.

Other figures less peculiar occur on such stones, as the horse, bull, boar, bird, fish, mirror, comb, and a horse-shoe arch. The third class of sculptures belong to the Christian era, for among them is the cross; the Christian symbol; and besides being in relief, they exhibit the beautiful style of ornamentation, which prevailed after the introduction of Christianity into Britain down to the eleventh or twelfth century. Other objects are introduced indicating foreign influence, such as the centaur, the hippocampus, the camel, the monkey, and various monsters; but these later sculptures are of value in determining, within a limit, the age of what we may call the Pictish symbols, for these symbols occur on the

artistic stones with the cross, proving that they had been in use during the period immediately preceding the introduction of Christianity into the North of Scotland. Older they are than that period, but how much it is impossible to say ; they are, in many cases, contiguous to circles of unhewn stones, and to ancient hill-forts ; and what is more important still, as determinative of their antiquity, one of these sculptures, that of the symbolical elephant, was found on a stone forming part of a sepulchral cist, which contained a rude urn and a bronze dagger.

"In regard to the people," says Colonel Leslie, "who introduced or executed these hieroglyphic sculptures, two theories present themselves—viz., either that they were introduced by a later body of Celtic immigrants than those who probably reared and certainly occupied the unhewn monolithic fane, or that they were introduced through the influence and example of foreign traders and settlers. The two theories may be conjoined, and we may imagine that some of the figures were brought by the early Celtic immigrants, and that they afterwards adopted others through external, possibly Phœnician influence. Some of these emblems indisputably, and all of them probably, are of Oriental derivation The Celts are the race, the Picts the people to whom must be attributed the execution and erection of the sculptured stones of Scotland."

In accordance with these views, our author regards these sculptures as religious emblems, and he seeks from eastern sources a key to their meaning.

Professor Westwood was led to think, from the Z symbol resembling a figure on gnostic gems and coins bearing cabalistic inscriptions, that the Scottish sculptures may have been intended to refer to the perpetual conflict between the cross, and false doctrines and worldly pursuits. Dr. George Moore, who has recently attempted an explanation of them, says "they had a distinct relation to the Buddhistic religion ;" the V and Z symbols, together with discs, he discovers on several Buddhistic coins of north-western India, on which are legends in Aryan and Sanskrit characters ; the *discus*, according to Buddhism, signified infinite space, time or eternity ; when concentric, the circles symbolised systems of worlds or successive and connected periods of long duration ; the crescent symbol signified the dome of heaven, and may have had a relation to lunar worship ; "the signs at the terminations of the Z symbol are," he says, "doubtless significant of the power of Buddha in relation to punishment" ; in reference to the symbolical serpent, he remarks, "the wand of power, which signifies also the sun's path in the heavens, would, when intertwined with the serpent, express the everlasting dominion of Buddha, attained as a man in the conquest of all evil." Colonel Leslie's expositions are of a similar

speculative character ; he imagines the double disk and sceptre, in some way, emblematic of the sun, and connected with solar worship ; the crescent and sceptre, an emblem connected with the worship of the moon ; the serpent and sceptre, an astronomical as well as a religious emblem, connecting planetary worship and healing powers, for the serpent, according to eastern mythology, represents both a malignant and beneficent influence from its fabled subtlety and wisdom ; the upright figure crossed by the Z he calls a fire altar, and links it with the Beltane fires ; and the elephant-like figure has reference to astral and atmospheric worship.

Colonel Leslie illustrates his views with much ingenious learning and curious information ; but he, as well as other speculators, have completely failed to show any identity between the Pictish symbols and figures found in other parts of the world. They as yet stand alone. Circles, crescents, curves, and angles are abundantly used for decoration or emblems ; but they are such forms as would be readily adopted by any nation ; and in their application to decoration or worship they might originate in a thousand independent sources. The figures on gnostic gems, on Bactrian coins, and on Phœnician sculptures have not the peculiarity which distinguishes the Pictish symbols, and which consists in the *combination* of V and Z figures with the disks, sceptres, and serpents ; and this peculiarity was not likely to originate in many independent sources. These symbols therefore must, until other evidence is produced, be regarded as originating with the Picts themselves, and not derived from some foreign influence ; and as expressing, most probably, religious sentiments and superstitions peculiar to the Pictish people.

Notwithstanding, however, the fanciful character of not a few of Colonel Leslie's speculations, we cordially recommend his elaborate work to the careful study of anthropologists. Few books contain more varied and important information : it is a mine of learning for the subjects on which he treats ; and some sixty beautiful plates give rich illustrations of all kinds of stone monuments and of ancient symbolical sculptures.

OUR GERMAN CONTEMPORARY.*

AFTER some little delay the two first parts of our new German contemporary have made their appearance. The first and second parts of the *Archiv für Anthropologie* have appeared together. We feel sure that this periodical will mark an epoch in the study of anthropology on the continent. This periodical will not have to struggle for its birth, but comes before the world with a sufficient guarantee that it will become a necessity to all real students of anthropological science. This will be sufficiently evident when we mention the fact that it is edited by Carl Ernst von Baer, St. Petersburg; E. Desor, Neuchâtel; A. Ecker, Freiburg; W. His, Basel; L. Lindenschmitt, Mainz; G. Lucae, Frankfort-on-the-Maine; M. L. Rüttimeyer, Basel; H. Schaafhausen, Bonn; C. Vogt, Geneva, and H. Welcker, Halle.

We should much like to see the whole of this important periodical translated and published in this country; but as we fear that this is not likely soon to take place, we shall feel it our duty to keep our readers informed of the chief contents of an admirable contemporary. On this occasion we must content ourselves with giving a translation of the introductory article, which is written by one of the acting editors, Professor Ecker.

"Despite that the country and the times we live in are abundantly blessed with scientific publications, we nevertheless unhesitatingly venture to send another periodical of this kind into the world.

"Although anthropology—in the sense we conceive it—is yet in its infancy, it has very recently and within a comparatively short period, both by the zealous investigations of men of science, and the interest excited among the educated classes, acquired such an extension, importance and position, as not merely entitle but force anthropology to step forth as an independent discipline, to define her boundaries, to be represented in literature, and not as hitherto humbly to claim shelter from other disciplines. In undertaking to satisfy these urgent demands by the foundation of this periodical, it may not be out of place to state what branches of science will be represented in its pages.

"The nature of man as the object of anthropology is, in the words of V. Baer, 'the culminating, or the starting point, according to the interpretation we give of various sciences, of zoology, comparative anatomy, universal history, philology, social science, and jurisprudence; it comprises psychology, as a whole, since we only know so much of the souls of animals and their thoughts as we by anthromorphism

* *Archiv für Anthropologie*. Edited by A. Ecker and L. Lindenschmitt. Braunschweig: 1866.

attribute to them ; nay, philosophy as a whole, is merely the expression of the various modes by which man has endeavoured to comprehend the world.'

"But in a restricted sense there are two sharply demarcated departments into which the immense empire of the science of man may be divided. In the first, we consider man in social life, or humanity as a whole, and the effects resulting from this social condition. This constitutes the department of history, especially of the history of civilisation. In the second, man is considered as an individual, as the representative of the zoological genus 'man'. This is the natural history or zoology of man—anthropology in the present sense. But inasmuch as the zoology of animals comprises not merely the knowledge of external formation and internal structure, but also the theory of life, physical as well as mental, so the natural history of man comprises anatomy and physiology as well as psychology.

"It has—to give a short summary of its tasks—first to consider the variations within the human species, the various races and stocks of mankind, according to the external so-called zoological and anatomical characters, a branch of the science which may with V. Baer be appropriately termed *comparative anthropology*. It is clear that the whole anatomy of man, just as it is taught as a basis for medicine, must be subservient to the anthropologist ; but hitherto it was only comparative craniology which yielded some notable results, to which may be added the theory of the proportions of the skeleton. The comparative anthropology of the brain, and of the soft parts generally, is yet in its infancy ; and unfortunately the populations which might furnish in this respect the most important materials, namely, the lower races, disappear rapidly. But since the brain and the cranium which receives its shape from it, exhibit, according to many observations, the most striking differences in the various races, and are also most characteristic as compared with those of animals, comparative craniology justly constitutes one of the most important branches of comparative anthropology, quite apart from the circumstance that skulls afford frequently the chief evidence of extinct races and peoples.

"But comparative anthropology will not rest satisfied with the simple consideration of physical variations ; it will also have to compare the functional capacity, the whole physical life. It will then have to ascend to the comparison of mental endowment, the intelligence of the respective races ; and will have to investigate how far the structure of the brain harmonises with it, and this leads necessarily to the comparison of languages, manners, industry, and religion.

"This applies especially to comparative philology, which in recent times has acquired great importance, although we look upon it as an error that its results have, as regards certainty, been placed above the anatomical results. Surely the diversity in language, by the mediation of which notions are formed, and by which man becomes a man, rests as much upon congenital differences in the purely intellectual sphere (consequently also in the cerebral formation), as upon the special conformation of the articulating organs, and hence comparative philology partly rests upon an anatomical basis.

"Even then comparative anthropology cannot remain stationary; it will have to discuss the following questions: How did the variations in the human species arise? Are they the effects of various external influence, especially of the climate, or are they original? And in order to answer these questions, the influence of the media, of intermixture, etc., the causes of the disappearance of some races, their power of resistance, diseases, etc., will have to be investigated. These questions, as well as some others presently to be mentioned, are comprised in what at present in France is called *general anthropology*.

"On casting a rapid glance at the above outlines of the province of comparative anthropology, it cannot be denied that it pretty nearly covers the same ground as 'ethnography' or 'ethnology'; but were we obliged to give an opinion on the unrefreshing contest which lately took place between the ethnological and anthropological societies of London, we certainly should hold that 'ethnography' is a part of 'anthropology', but not the latter a part of the former; and that considering the uncertain and oscillating signification of 'ethnology', it were best to substitute for it 'comparative anthropology'.

"There is a second main problem of anthropology, namely, the investigation of the differences subsisting between man and the animals standing next to him, the so-called anthropoids; or 'man's place in nature,' as the question has lately been formulated. This problem will have to be solved partly by the anatomist, and partly by the psychologist. On the one hand, there will be requisite the most careful comparative anatomy of the body, especially the minute structure of the brain, and, on the other hand, the analysis of psychical functions. However much may have been done in this direction, much more remains to be done before we can indulge in any hopes to solve these final questions in relation to the genetic connection between man and the anthropoid animals, which have by the followers of Darwin been proposed too early. Whether palæontology and the theory of development will throw some light into this obscurity remains yet to be seen. But surely it is not the task of a serious science prematurely to discuss questions to answer which we lack materials, for we gain according to a well known just maxim, 'by no means the truth, in deciding doubts at the improper time.'

"But natural history is not merely the description of nature; it is as its name implies, history; it embraces not merely the developed but development. Just as the natural history of animals, zoology describes not merely the living but extinct animals and considers their appearance and disappearance on the globe, so the zoology of man is at the same time palæontology (palæanthropology) having for its aim the investigation of man's first appearance upon the earth. It thus on the one hand becomes intimately connected with geology, which is an indispensable auxiliary science, and on the other hand with archæology and history. Here the geologist and the palæontologist and the archæologist meet, the latter descends into the most ancient graves of our ancestors, whilst the former explores such formations which contain the first traces of man by the side of the relics of extinct animals.

The *history* of man runs with its terminal points into the *natural history* of man, into palæanthropology. The problem common to both is to construct from the most ancient remains of man, his chase and domestic animals, and the fragments of his primitive industry, his prehistoric or primæval history. But also into the province of written history must anthropology extend its researches; for if for instance it be our wish to investigate the genetic connection of the present inhabitants of Europe with its primitive population it is only possible, by advancing from the examination of the skeleton, and especially of the skull of the former as found in the graves of all centuries, until we arrive at the relics of the latter. All this portion of the field of inquiry has since R. Wagner been denominated *historical anthropology*. It is this branch which forms a connecting link between the two grand disciplines into which the science of man is divided,—*history* and *natural history*.

“Hitherto the various labours in the above-mentioned fields of inquiry have been carried on independently of each other. Thus archaeologists looked upon skulls as worthless, and much that is valuable has consequently been lost for science. The altered spirit of the times has led to great improvement in this respect. The individual departments of science are no longer so exclusive, they begin to throw their lights upon other apparently foreign fields, and become allies in the solution of certain questions. . . . This principle of association has already produced its fruit upon the soil of science. Questions arose for the solution of which the co-operation of other discipline was requisite. Thus as regards the varieties of the human species it became necessary apart from physical qualities to study also the resemblance or diversity of language and an unexpected relation was thus established between the naturalist and the philologist. The thirst for knowledge imbued with a spirit of free inquiry gradually established links of connection between apparently broadly demarcated sciences, and thus became enlarged that field of knowledge, which we now denominate the *natural* and *primæval history* of man, or expressed in one word *anthropology*.

“In all countries where science progresses the necessity of association was felt, and effect given to it according to the political and national peculiarities of the respective states. In the great metropolis of the centralisation state, where by far the greatest number of the scientific men of the country are crowded together within a comparatively small space, this state of development manifests itself first. A number of scholars formed an association—the *Société d'Anthropologie*, which consisted of the representatives of the above-mentioned branches of science constituting anthropology, for the purpose of discussing questions which could not satisfactorily be answered by the discipline. In this society, and the periodicals issued by it, the various labours found a common centre, and in their pages will be found what has been effected in France in the field of anthropology. Soon after a similar society was formed in London, and very recently, we understand, also in Madrid. To create such a central union in Germany in a similar form, our political condition, apart from other reasons, will not admit of. Such an association, which we have no

doubt will be formed, can only appear in the shape of a migratory association, as a section of the association of naturalists. But such a society has not the power to perform what an independent society can effect, and hence another point of union must be established. It is unquestionable that the individual disciplines which, by their union, constitute anthropology, can no longer claim admittance as guests in the exclusively medical, anatomical, archæological, and scientific journals, in which they are scarcely tolerated, or find too little shelter to live and to thrive. On the other hand, we cannot expect from the public, who daily take a greater interest in anthropology, that they should read the various publications in which the facts of anthropology lie scattered. It has, therefore, long been a great desideratum to establish a central organ for anthropology. At the meeting of anthropologists in 1861 at Goettingen, the plan to found such an organ was discussed, but no effect given to it on account of various obstacles until the necessity for it became too urgent to delay it any longer. The above-mentioned editors met at Frankfurt on the 7th of June, 1865,* for the purpose of establishing these Archives, which have for their object to become a central organ for anthropological efforts in Germany and allied countries. The Archives will contain, besides original treatises, reports of the more important papers of foreign societies, translations, and, as far as possible, a complete literary register. Since these Archives have partly for their object to supply the want of a society, minor communications from correspondents will readily find insertion, in order to establish a means of intercommunication between the fellow-labourers in our science. With respect to certain questions, such as methods of measurement and modes of investigation, it is highly desirable to interchange ideas and to come to an understanding. The Archives, finally, although a periodical for professional anthropologists, anatomists, zoologists, archæologists, and philosophers, is at the same time intended for the educated public. On the other hand, it will contain the most important labours in the whole field of anthropology, and its progress, whilst, on the other hand, it will spread the results of these labours in wider circles. But whilst the Archives are intended to fulfil this task, they will enter into no rivalry with the numerous popular publications which make everything pleasant for the public, without providing it, at the same time, with the means of judging. V. Baer says very justly in his excellent autobiography, 'Science, it is said, must be rendered popular. Very well. I have always inclined to this opinion; but now, as the work is proceeding, and the fruits of the discoveries are ground down in innumerable mills, these appear to me to resemble bone-mills in which the relics of living organisms are transformed into a shapeless powder in order to manure the field and procure nourishment for the people. The object is certainly a good one, nevertheless it cannot be denied that

* Excepting V. Baer and Rüttimeyer. The former on account of indisposition; but both approved of our undertaking, and have promised to us their support and co-operation.

in this process some untrue, consequently, unwholesome, matter is mixed with the powder, which is no longer recognisable since all the evidence of its origin is lost.' This is the object of the Archives ; may they succeed in fulfilling it."

WILSON'S PRE-HISTORIC MAN.*

THE first edition of this work was published in 1863 ; and acting on the rule which a known and certain zoological law has laid down—that a great longevity is oftentimes granted to animals of a slow circulation—the year 1866 witnesses a fresh edition.

Let us examine how far the second differs from the first. The author acknowledges that in his first edition "Some errors beyond the reach of errata also resulted from the want of proof sheets. But of these it is only necessary to notice here the woodcut, fig. 58, p. 446, which was introduced with the title of one now correctly given on p. 449, as an example of the normal Peruvian dolichocephalic skull." Charles II is said to have said to a lady of the court whose dress was somewhat dilapidated, "that a rent is better than a darn ; a rent is the accident of a minute, but a darn is premeditated and deliberate poverty." Dr. Wilson's darned craniology is certainly worse than his former slips. The reviewer of his work in these pages (vol. i, p. 139) pointed out that he gave a figure which he considered to be that of a well proportioned symmetrical skull, unaltered by any artificial appliances. This skull was undoubtedly artificially distorted ; as any one but Dr. Wilson might see. He not only repeats the blunder in the present edition ; but actually makes it worse, by altering the title of a Peruvian dolichocephalic skull, supposed by him to be naturally dolichocephalic, to that of a "depressed skull." If he had stopped here, we might have considered it a harmless error, in which the feeble mind of the writer was seen struggling vaguely to extricate himself from the blunder which he had committed, without precisely knowing where the blunder was. A critic might at least have given him credit for good intentions. Yet he has actually introduced a new artificially compressed skull (his woodcut 59 on p. 449) which he calls a "Peruvian dolichocephalic skull." This skull is just as much artificially compressed as the other one ; and in spite of the enormous parade of facts

* *Prehistoric Man; Researches into the Origin of Civilisation in the Old and the New World.* By Daniel Wilson, LL.D. Second Edition.

which Mr. Wilson adduces, the homely comparison is applicable to him that he has gone "out of the frying-pan into the fire."

The scope of the work professes to deal with "pre-historic man", yet the majority of instances are invariably taken from America. If there were really evidences of man in the American geological period; if the Natchez man and the New Orleans man had been actually pre-historic individuals; if the proofs on which Lund surmised that early man in Brazil inhabited the bone caves of that country with the extinct animals, were before us; we might then with some show of plausibility demand for pre-historic man in America an amount of attention equal to that which is bestowed on our ancient human remains in the Old World. But we have really no positive evidence before us of fossil man in the New World. And when we travel towards the present era, less and less grounds are afforded to us whereon to assert even the antiquity of American "pre-historic" civilisation. Mexico, Peru, and the buried cities of Central America, have, it is true, afforded us evidence of a high civilisation prior to the advent of the Spanish conquerors. But the proof of the time during which this civilisation prevailed is always lacking. The generations of kings, on whom so many imaginary genealogies have been founded, are as untrustworthy evidence of historical fact as the genealogies of the Welsh or the Siamese. We fear that at present the question of pre-historic man in America must rest in abeyance until some one gifted with the critical historical faculty—some future Niebuhr—arises; and then it is possible that science may be evolved out of the chaos which now exists. If the physical evidence of the descent of the present American aborigines from a stock distinct from those of the Old World is investigated, the following is the first broad result. A Peruvian skull resembles a Mexican skull; a Mexican skull resembles a Californian skull; a Californian resembles a British Columbian; many British Columbians resemble Esquimaux (of the west coast); and from the Esquimaux of Behring's Straits to the Tschuktchi and Koriaks, the transition is easy. We are then plunged into the so-called "Mongolian" races, at the extreme north-eastern corner of Asia. Although the above *sortes* is roughly sketched, we may challenge the most detailed reference to craniometry before it can be disproved. The philological evidence is, however, of course apart; this in the hands of Dr. Wilson, is as nothing. We have to congratulate him on being the author of a large work which has run through two editions, and succeeded in teaching nothing of importance with regard to its subject. As the work stands before us, it comprises more than 600 pages, which might with great advantage to the author's reputation, and his readers' patience, have been compressed into 100. We can

but quote the last sentence. After doing nothing of real work himself to solve the difficulty of pre-historic man, the "*Deus ex machina*" is as usual invoked to pick him out of the mud ; and he concludes : " I venture to hope that the process of investigation and reasoning here pursued may unravel some perplexities, and show such an approximation to a beginning in relation to man's intellectual progress, as to confirm the anticipation that ampler knowledge will bring with it fresh evidence of harmony between the disclosures of science and the dictates of revelation."

THE KHONDS OF ORISSA.*

MAJOR MACPHERSON'S life, written by his brother, Mr. William Macpherson, is a record of the highest interest as including the private life of a man of great ability and force of character, the history of his important political work in India, and the account of his well-directed efforts to raise in the scale of civilisation the hill tribes of Orissa. For the objects of this Journal, however, Major Macpherson's descriptions of the bodily make, mental character, history, life, and habits of these Orissa Khonds are the main subjects of interest, and we shall confine ourselves to describing the leading details of his anthropological dissertations, which rank among the fullest and most remarkable contributions ever made to the history of savage life.

The Khonds, who were among the primitive races of Orissa, were driven by the Hindus to the forest and the hill, and now inhabit the hilly country and table lands of the Ghauts, the Khond district comprising about five hundred square miles. The extreme unhealthiness of their malarious climate, the poisonous effect of which extends even to unseasoned Hindus, and is simply deadly to Europeans, except for a few weeks in the year, has had the effect of keeping the Khond civilisation, though within a short journey of the Hindu civilisation of the plains, in an isolated state ; and it has thus, to a very remarkable degree, retained those original characteristics which, under circumstances more favourable to intercourse and admixture with surrounding races would no doubt have disappeared.

"The Khonds are fitted by physical constitution to undergo the severest exertions and to endure every form of privation. Their

* *Memorials of Service in India*. From the Correspondence of the late Major Samuel Charters Macpherson, C.B. Edited by his brother, William Macpherson. London: John Murray. 1865.

height is of about the average standard of Hindus of the Peninsula. Their forms are characterised by strength and symmetry. The muscles of the limbs and body are clean and boldly developed. The skin is clear and glossy, its colour ranging from a light bamboo to a deep copper shade. The heel is in a line with the back of the leg, the foot is somewhat larger than that of the Hindu, and the instep not highly arched, although the Khond, nevertheless, has extraordinary speed of foot. The forehead is full and expanded. The cheek bones are high and rather prominent; the nose is seldom, though occasionally, arched, and is generally broad at the point; the lips are full, but not thick; the mouth is rather large. The whole physiognomy is generally indicative of intelligence and determination, blended with good humour."

The Khond villages are beautifully situated, and often consist of one slightly curved street with a gate at either end. The pursuit of agriculture is held in great honour, and practised with a degree of skill and energy perhaps nowhere surpassed in India; and the mountain Khonds are extremely rich in bullocks, buffaloes, goats, swine, and poultry. The other necessary arts of life are performed for them by pariah or Hindu families settled among them, who may be divided according to their trades into the panwa, or weaver (who also provides the human victims); the lohara, or ironsmith; the komaroo, or potter; the gouro, or herdsman; and the soondi, or distiller. These they treat with kindness, but consider as an inferior race. Hospitality is regarded as one of the chief virtues, and fugitives are received and protected—with the exception of the muriah, or victim, who must be given up. If a man can make his way into the house of his enemy, even if his life has been forfeited, he cannot be touched.

Marriage can take place only between members of different tribes, and a state of war or peace makes little difference. After a fight, the women of each tribe visit each other, and condole on the loss of their relatives. The custom among the Khonds is for boys of ten or twelve to marry girls of fifteen or sixteen. The use of money being almost unknown, the father of the bridegroom pays to the father of the bride twenty or thirty lives, a life being either a buffalo, pig, goat, sack of grain, or set of brass pots, as may have been agreed upon beforehand, and then the marriage is at once solemnised. The father and friends of the boy carry rice and liquor in procession to the house of the bride, the priest makes a libation to the gods, the parents of the parties join hands, and then all partake of the prepared cheer. Afterwards an entertainment takes place either at the bride's home or some convenient place near the house of the bridegroom, with feasting, dance, and song. When the night is far spent, the uncles of the bride and bridegroom raise them on their shoulders, and, join-

ing in the dance, the burdens are suddenly exchanged, and the uncle of the youth disappears with the bride. Then the company divides into two parties, the friends of the bride endeavouring to arrest the others, to cover her flight, and all—men, women, and children—join in the mock fight. The priest attends the newly-married couple home, rehearsing a charm whenever they cross a brook. If the husband is a boy, they live together in his father's house, the wife aiding his mother in her domestic labours till he is old enough to have a house of his own. When a child is born, they determine the best name for it by the priest dropping grains of rice into a cup of water, naming with each grain a deceased ancestor. From the movements of the grain and observations on the child, he determines which of his ancestors have reappeared in him, and names him accordingly.

On the death of the patriarch of a district, gongs and drums are beaten, the body is placed on a funeral pile which is set on fire, while the family and people of the hamlet perform a dance round a high flag-staff set up close by, and surrounded with the personal effects, clothes, arms, drinking vessels, etc., of the deceased chief. The dance is continued at intervals until the tenth day, the property is distributed among the different abbuyas or chief people in the tribes, and an assembly is held to acknowledge the heir of the late patriarch.

The religious system of the Khonds is described at great length, as it was with practices arising out of it, that Major Macpherson was chiefly concerned—the putting down of human sacrifice, and of female infanticide. They believe in one Supreme Being, Boora Pennu, or the God of light, the source of good, creator of the universe, of the inferior gods, and of man. Boora Pennu in the beginning created for himself a consort, Tari Pennu, or the earth goddess, who, jealous of the creation of man, rebelled against him, and became the source of evil. Up to this point the Khonds hold the same general belief, but from it they divide into two sects: that of Boora, believing that he was triumphant in the contest; that of Tari, holding that she remained unconquered, and still maintains the struggle. The sect of Tari-Pennu are those who offer human sacrifices; the sect of Boora-Pennu practise female infanticide. The Khonds believe that men are endowed with four souls: first, one that may return to Boora after death; second, one that belongs to some tribe, and is reborn in it; third, one that endures the suffering for the punishment of sin, performs transmigrations, and sometimes temporarily leaves the body, leaving it weakened, languid, and sleepy—this is the soul which, if a man becomes a tiger, animates the

bestial form; the fourth soul dies on the dissolution of the body. Among the inferior gods is Dinga Pennu, the judge of the dead. He resides in a great rock, or mountain, called the Leaping Rock, perfectly smooth and exceedingly slippery, with a bleak unfathomable river flowing round it. To it the souls of men speed straight after death, and have to make desperate leaps to secure a footing on its surface; failing to do this, they break limbs or knock out eyes, and these deformities are generally communicated to the next bodies they animate. Meantime Dinga sits upon the rock, casting up each man's account of good or evil, and awarding their sentences.

The worshippers of Boora-Pennu, while holding in abhorrence the practice of human sacrifice, carry that of female infanticide so far that in a village of a hundred houses there is often no female child to be seen. This practice seems partly attributable to the difficulties that arise from the custom of marriage only taking place between different tribes. The influence and privileges of women are very great among the Khonds, and many difficulties and quarrels are caused by the marriage arrangements; and by the death of the female infants, say the Khonds, "the lives of men without number are saved, and we live in comparative peace." They believe that they have the sanction of the gods for their practice, killing female infants, Boora having repented of the creation of the first feminine being, and given them permission to bring up only as many females as they should find consistent with the good of society. They hold, also, that the more female souls they remove from the earth, the more chance there is of getting new male souls in their place.

In the worship paid to Tari-Pennu, the earth goddess, the chief rite is human sacrifice. Such sacrifices are celebrated publicly at fixed periods, and are so timed that each head of a family can have a share of flesh for his fields about the time when his chief crop is laid down. Besides these regular festivals, they offer extra sacrifices on special occasions, if the crops should threaten to fail, or many deaths occur from disease or tigers, etc. In case of family misfortunes a private sacrifice is made. The victims, or meriahs, who are almost always procured from other tribes, may be of any race or age, and of either sex, but they are only acceptable to Tari if they have been purchased by the Khonds, or are born victims, that is, are the children of victim fathers, or have been devoted to the gods by their parents. They are generally supplied to the Khonds by the races of Panwas and Gahingas, who either purchase or kidnap them in the low lands, and bring them blindfolded to the village, where they are lodged in the house of the mullicko, or chief. The meriah, or victim, is regarded through life as a consecrated being, and if a child is often

permitted to attain to years of maturity, has a wife given to him, and brings up a family of victim children, who, though liable to be sacrificed at any time, sometimes escape their fate. The victims are treated with great affection and deference, and are considered as superior beings, whose privilege it is to give up their lives for the good of mankind, and who will be beatified immediately after death.†

“The celebration of the sacrifice is held as a public festival, which lasts about three days, and is attended by a large concourse of people. After many preliminary observances, prayers to Tari, processions, music, dancing, and feasting, the victim, who is bound to a post in the sacred meriah grove, is on the third morning refreshed with a little milk and palm sago, and released from his bonds, though closely watched, and generally stupified with opium. A series of invocations, legends, and dialogues are then gone through, the parts of the victim, the chief, and the priest being sustained in a semi-dramatic way by the best actors to be found. After an invocation to Tari-Pennu, and an account of the institution of human sacrifice, the priest thus continues: ‘We obeyed the goddess, and assembled the people. Then the victim child wept, and reviled, and uttered curses. All the people rejoiced except those with whom the child had dwelt, and the janni (priest). They were overwhelmed with grief.’ . . . The earth-goddess came again and said, ‘Away with this grief. Your answer is this: when the victim shall weep, say to him, Blame not us, blame your parents who sold you. What fault is ours? The earth-goddess demands a sacrifice. It is necessary to the world. The tiger begins to rage, the snake to poison, fevers and every pain afflict the people—shall you alone be exempt from evil? When you shall have given repose to the world, you will become a god by the will of the gods.’ Then the victim answers: ‘Have you no enemies, no vile and useless child, no debtor to another tribe who compels you for his debts to sell your lands: no coward, who in time of battle skulks with another tribe? Have you none of these to seek out and sacrifice?’ The Janni replies: ‘We have acted upon quite different views. We did not kidnap you on the road, nor while gathering sticks in the jungle, nor when at play. The souls of those whom you would have us sacrifice can never become gods. They are only fit to perish by epilepsy, falling in the fire, or by ulcers, or other dread diseases. Such sacrifices would be of no avail. To obtain you we cleared the hill and the jungle, fearless of the tiger and the snake. We stinted ourselves to fill your parents, and gave them our brass vessels; and they gave you to us as freely as one gives light from a fire! Blame them! Blame them!’

“Then the Victim protests: ‘And did I share the price which my parents received? Did I agree to the sale? . . . You, O my father, and you,—and you,—and you,—O my fathers! do not destroy me!’

“The mullicko, or chief of the village where the victim was kept, now says: ‘This usage is delivered down to us from the first people of the first time. They practised it. The people of the middle time omitted it. The earth became soft. An order re-established the rite.

O child! we must destroy you. Forgive us. You will become a god!

"The Victim: 'Of this your intention I know nothing; I thought I was to pass my life with you. I assisted to build houses, and to clear fields for my children. See! there are the palm-trees I planted, there is the nohwa-tree I planted—there is the public building on which I laboured—its palings still white in your sight. . . . Let the whole burden of my soul's grief, as I remember the past, lie upon you.'

"The Chief: 'You are about to become a god. We shall profit by your fate. We cannot argue with you. . . . Do you not recollect the day on which we cut your hair, devoting you to sacrifice? and do you not recollect that when many were sick, and the janni brought the divining sickle, he declared, "The earth demands a victim"?'"

"The Victim: 'It is true I did observe something of this; but your aged mothers, your wives, and your beautiful children, my brothers and sisters, assured me that you were humane, and would never kill one so useful and beautiful as I.' . . .

"The Chief: 'Your parents, forgetting your beauty, forgetting the pleasure of cherishing you, turned their hearts to my cattle, and my brass vessels, and gave you away. Upbraid *them*! Heap imprecations upon them. We will curse them with you, imprecating upon them—that all their children may be similarly sacrificed—that they may lose, within the year, the price for which they sold you—that they may have a miserable and forlorn old age, lingering childless and unfed—that when they die in their empty house, there may be no one to inform the village for ten days, so that, when they are carried out to be burned, all shall hold their nostrils—that their own souls may afterwards animate victims given to hard-hearted men, who will not even answer their death-plaints consolingly. Curse them thus, and we will curse them with you.' . . .

"The Victim: 'My curse be upon the man who, while he did not share in my price, is first at my death. Let the world be ever upon one side while he is on the other. . . . I call upon all—upon those who bought me, on those whose food I have eaten, on those who are strangers here, on all who will now share my flesh—let all curse the Janni to the gods!' . . .

"The Janni: 'Dying creature, do you contend with me? I shall not allow you a place among the gods.'

"The Victim: 'In dying, I shall become a god; then will you know whom you serve. Now do your will on me.'

"The victim is then sacrificed, and his flesh stripped off and divided into portions for the different villages, which are carried home wrapped in the leaves of the googlut-tree. Arrived at the village, the portion is divided in two, and one half buried in the ground; the rest is divided between the heads of houses, each of whom takes his morsel and buries it in his fields, placing it in the earth behind his back without looking."

Such is the outline of the rite of human sacrifice among the Khonds.

By steady perseverance in his purpose, Major Macpherson was at length able to put a stop to both human sacrifice and female infanticide; though the difficulties of the attempt were much increased by the want of proper support from the Indian government. Whether they are still discontinued, or whether after his departure the Khonds went back to their old habits, we are unable to say. For fuller accounts of this remarkable race, we must refer to the book itself. This slight sketch will at least serve to show the immense value of the contribution which Macpherson made to the History of Man by the investigations which he carried on with such perseverance and energy, and for which he had to pay so dearly in bodily suffering and in official ill-treatment.

ROMAN INTERCOURSE WITH IRELAND.

IN the May number of this *Review*, we published a short article on Roman Intercourse with Ireland, in allusion to a paper read by Mr. Thomas Wright before the British Association at Birmingham in 1865. Mr. Wright has since honoured our short remarks by a special paper, which he read before the Ethnological Society. It, therefore, now becomes our duty to offer a few observations in reply to this communication.

The historical instances of the Roman arms penetrating without conquering a country, are so very few and far between, that we have erred in considering Mr. Wright meant that the Romans had subjugated Ireland, and established themselves in that country. This, it now appears from his late paper, was very far from his thoughts. Though he still holds that it "can hardly be doubted that the Romans did invade, and, in their view of the case, subdue Ireland." Now, in our opinion, the Romans used to take a very practical view of such cases. We would be very sorry to descend to any mere word-quibbling on this important historical question, nor can we suppose that the Romans made much distinction between the words subdue and subjugate. Though Livy tells us that the words *Væ victis* were first used by Brennus, the Gaul, when he threatened extermination to the Roman people, the latter very soon acquired them, and used them whenever they wished to express the particular relations existing between a conquering and a subdued people, "in their view of the case."

To acquire accurate ideas of ancient knowledge, we must in all cases throw aside our own altogether, and we must try to think as

they thought, with the little knowledge they possessed ; we must drop a veil over our eyes, and endeavour to look upon matters exactly as they saw them with their own lights. Strabo was the most distinguished geographer of antiquity ; he was just dead when Juvenal wrote, and there can be little doubt that his geography had been consulted by the poet. But, as has been well observed by Casaubon, Strabo's geography of Great Britain and Ireland is inaccurate, inconsistent, and self-contradictory. Among other errors, he actually states that Ireland is situated due north of Britain. Tacitus, however, lived in Juvenal's time, and it is from his writings that the satirist has obtained the principal part of the geographical knowledge of our country which he displays. We are again forced to re-quote his often quoted words.

“ Arma quidem ultra
Littora Juvernæ promovimus, et modo captas
Orcadas, ac minima contentos nocte Britannos.”

From the above, we clearly see that the Romans had carried their arms over or beyond the shores of Ireland, not into the interior of Ireland, for then one shore would have sufficed, and we would have had the singular *littus* ; but Juvenal, to render his meaning plainer to us, has actually used the plural *littora*. And, as Tacitus informs us that the Roman fleet had sailed round the north of Scotland, captured the Orkneys, and seen Thule, we think Juvenal was quite correct in saying that they had carried their arms beyond Ireland. But observe, however, though he applies the word *captas* to *Orcadas*, he very properly abstains from applying such an expression to Ireland. Indeed, we consider and quote the words of Juvenal as a distinct proof that the Romans neither subdued nor subjugated, whatever the difference may be between the meaning of the two words, any part of Ireland.

Let us, however, take the exact words of Tacitus ; he says :—

“ Hanc oram novissimi maris tunc primum Romana classis circumvecta, insulam esse Britanniam affirmavit, ac simul incognitas ad id tempus insulas, quas Orcadas vocant, invenit domuitque. Dispecta est et Thule quadamtenus nix et hyems appetebat.”

Now we shall not enter into the ancient dispute as to where Thule really was. The ancient poets had heard of it, and made their own use of the place to adorn their verses, and unwittingly to puzzle modern commentators. Pliny's description of Thule, curiously enough, tallies with both Tacitus and Juvenal. Pliny says, the most remote of all the islands is Thule, which is six days sail from the north of Britain, in which there is no night at the summer solstice, while the sun is passing through the sign of Cancer. Here we have the *minima contentos nocte Britannos*, or at least the allusion upon which Juvenal wrote

the phrase. Tacitus says that Thule laid concealed in the gloom of winter and the depth of eternal snows; while Pliny says, it is but one day's sail from the Frozen Ocean. Those descriptions point most unmistakably to Iceland; and when the Roman fleet was in sight of that island, they had certainly carried their arms far beyond the shores of Ireland.

As regards the argument about Roman roads, we do not think it worthy of the slightest notice. The roads led to Legontium, from whence the Romans took shipping for Man or Anglesea, in both of which places they had mines. No doubt there was an important station at Holyhead; from the summit of the mountain the watchers could see an immense distance, northward, southward, and westward. From thence might the Irish pirates first be descried, making either for the Dee or the Severn; and by a telegraphic arrangement of beacons, or otherwise, notices of danger might be at once conveyed to Deva or Sabrinam.

There is no comparison whatever between Cæsar's short stay in England, and a Roman settlement in Ireland, lasting "during the whole period of the Roman power in Britain." The two cases are utterly dissimilar. But there is still a place on the Thames, named Cowey Stakes, and there are nothing but a few Roman coins found in Ireland. That Julius Cæsar twice invaded Britain is a well known historical fact. Stakes, to aid or impede his crossing over the river Thames, do not enter into the category of forts, roads, or earthworks, but still they mark the presence of Cæsar and his legions. We have read newspaper accounts of some of the stakes having existed as late as the last century; and we have a tobacco-stopper said to have been made out of a piece of one of them. We may be excused for reminding Mr. Wright that they were seen and described by the Venerable Bede in the following words.

"Quarum vestigia sudium ibidem usque hodie visuntur, et videtur inspectantibus quod singulæ earum admodum humani femoris grossæ et circumfusæ plumbo immobiliter hæreant in profundum fluminis infixæ."

So we find it written by Bede, in the first book of his *Ecclesiastical History*. The story is merely traditional; still, however, existing among the boatmen on the banks of the river, still talked of even in the very public-houses about Laleham and Chertsey; the spot is still named Cowey Stakes, nevertheless the tradition has the very respectable authority of Bede, who died in the eighth century, not so very long after Cæsar had crossed the river.

The Roman medicine stamp was found in the county of Tipperary. The wandering vendor of medicines might have stamped his collyrium

as he made it in the wilds of Ireland. And he cannot be accused of bad judgment when he carried medicines to cure hurts of the eyes to the county of Tipperary.

With respect to the Roman coins found in Ireland, we are indeed greatly surprised to find an eminent archæologist like Mr. Wright speaking of an urn containing 1,937 coins, together with 341 ounces of silver, composed of a large number of weighty ingots and ornamental pieces, supposed to have been used on armour for horses, and several battle axes marked with Roman characters. A more detailed and accurate account of this discovery is given in the *Ulster Journal of Archæology*, the true number of the coins being 1506. We really wish Mr. Wright had read this more detailed and accurate account, though we thank him for introducing us to an exceedingly interesting and valuable work. The account appears to have been written by the Rev. John Scot Porter, an eminent antiquary in the north of Ireland, and the coins have been described by Mr. Carruthers, an equally eminent numismatist. Of course there was no urn; the "discovery" was found below the surface, in the centre of an open field, and from the closeness in which the coins and silver were packed together, it was probable that they had been placed in a bag or box, which in the course of time had completely disappeared. There was nothing that the most inexperienced eye could possibly imagine to "have been used on armour for horses," or for battle axes. There were no other metal but silver amongst the "find." The coins were all small, scarcely any being so large as a modern sixpence; they were not in a perfect state of preservation, being nearly all clipped, defaced, and otherwise injured. Mr. Wright tells us accurately, that they were all of the lower empire, the list beginning with Constantius II, and ending with Constantine III; and yet Mr. Wright attempts to bolster up his erroneous reading of a short passage in Juvenal, by coins that had not been struck till long after the Roman poet had departed for the gloomy regions of Hades. Here is what Mr. J. S. Porter says of this "find:"—

"There was not a coin, or article of gold or bronze, nor a specimen of jewellery in the whole collection. This fact may assist in determining the purpose for which the whole had been gathered together. It was not a merchant's money-box, nor the hoard of a miser, nor the booty of a robber, nor the spoils of a warrior, nor the treasury of a monastery; in any of those cases the hoard would, almost beyond a doubt, have contained some gold or brass, or both, and, beyond a doubt, some article of plate in a perfect state; whereas it does not contain (with the exception of a portion of the coins) one unmutilated piece of wrought silver; all are bent, broken, and for every useful purpose destroyed; and nine-tenths of the whole consist of lumps, or

rude castings, which, at the time they were made, could have had no value at all, except the intrinsic worth of the metal. The only use to which such a heap could be applied would be as *old silver*, intended to supply material to a silversmith for the exercise of his art. I have little doubt that the hoard had been originally collected for this use; how or why it came to be buried in the earth it is impossible now to say with certainty. It may have been deposited there by its owner for safety in troublesome times, or it may have been stolen from him and buried by the robber for the purpose of concealment. But however it came there, its contents prove to my mind convincingly that *the art of manufacturing silver was practised, and perhaps extensively practised, in Ireland, at the time of its inhumation.*"

With respect to a Roman interment, with a Roman coin, having been found in the townland of Loughy, near Donaghadee, county of Down, we shall just quote a passage from the *Ulster Journal of Archaeology*, written by Mr. William Pinkerton, and published in vol. v, p. 36:

"That many of the Romano-British visited Ireland is more than simply probable; that some remained and died in this island is equally so; but the few scattered Romans who may have died in Ireland were strangers in a strange land, and we cannot expect to find in this country (Ireland) the distinctive Roman sepulchre, authenticated by the many well-known proofs afforded by the manufactures and peculiar burial customs of that people. This brings me back to my starting-point, the communication of Mr. Carruthers, and I regret to say, with all due deference to that gentleman, that, though I agree with him to a certain extent, I cannot go all the way with him. I can see no improbability whatever in the assumption that a Roman 'had been voyaging past the County Down, and had died either unexpectedly on board or in a fit of illness, after having been removed on shore.' But the very act of bringing the body on shore, either alive or dead, under the above conditions, would imply that the deceased was a person of rank or distinction; and it is well known that in such cases it was the Roman custom to burn the body on the nearest convenient spot, and to carry away the ashes to be interred with the usual ceremonies and accompaniments elsewhere in Italy, Gaul, or Britain, near the remains of the deceased's kindred. Besides, there was nothing distinctively Roman in the remains found near Donaghadee—nothing but what has been found in Celtic as well as Saxon sepulchres. In short, though a Roman might have been buried at the place, and in the manner alleged, there is no evidence whatever to support such an assumption—one, in my opinion, too lightly hazarded."

Mr. Wright also alludes to Roman coins having been found in a Roman cemetery near Bray, in the county of Wicklow. Though we have resided at Bray, we are totally ignorant of the circumstance, and a reference to the *Proceedings of the Royal Irish Academy*, vol. iii,

p. 186, as quoted by Mr. Wright, does not, in the slightest degree, inform us on the subject.

Mr. Wright, in the conclusion of his paper, draws from those few coins the following startling inference. He says that "the coins themselves show that this settlement of the Romans in the north-east of Ireland, of whatever character it may have been, lasted during the whole period of the Roman power in Britain." The settlement is quite gratuitous, but we shall let the word pass; the remains, then, of the Romans in Ireland are but a few coins that may have been carried thither by any one, while one would imagine that the Romans in Britain amused themselves by scattering their coins broadcast over the land. It is not twenty years since we visited Gari-ononum in Suffolk, and we picked up a handful of coins when walking over the ground enclosed by the ancient walls, and the field at the time was full of persons gleaning wheat and gathering coins.

In conclusion, we may express our regret at being engaged in a discussion with Mr. Wright on Roman antiquities in these islands. He, of all men, who has been our mentor and our teacher upon archæological matters, who knows as much, and has probably done as much to elucidate and make popular our Roman antiquities as any man in England. It is a very great pity that he has not devoted his extraordinary talents to the new fields of scientific inquiry, before he so boldly stated his opinions on bronze and iron weapons. At Haalstatt in Austria, one thousand tombs of the ancient miners of salt, have lately been opened by M. Ramsaner, the director of the mines. They, unmistakeably, show a date previous to that of Philip II, King of Macedon, father of Alexander the Great. They may and do date from the tenth to the fourth century before the Christian era, a transitional period, when bronze tools and urns were slowly dying out before the use of iron. The arms of iron found at Hallstatt are actually copied from their predecessors in bronze, and there the short, sharp, two-edged, leaf-shaped sword first appears in an iron form. Bronze paalstabs faced with iron edges have been found, and, generally speaking, there are more iron than bronze celts in the collection rescued from their burial of centuries. Daily, hourly, we may say, discoveries of the greatest value are being made on the continent of Europe. Do what we may, we cannot close our eyes to the vast vistas of antiquity opening to us on almost every side. Let us follow the paths thus exposed to our view, with sure and steady steps; to us is left the honour of exploring them, and let us do our work well and worthy of the great cause in which we are engaged.

PROCEEDINGS OF THE PARIS ANTHROPOLOGICAL SOCIETY.*

M. BONTÉ after referring to what he had stated at a previous meeting, namely that he considered the Celts to have been a brown, and the Kimris a light coloured race, would confine himself for the present to replying to certain assertions made in the course of the debate. And first he considered the pretended brachycephaly of the so-called pre-Celtic race as unproved. He would admit they were a brown race, as everything indicates their having been of the Iberian stock, but nothing shews that they have been exclusively brachycephalic, there being no proof that the Iberians were exclusively brachycephalic. . . . Neither must we because Dr. Thurnam found in England brachycephalic crania in monuments of the bronze-age apply his discovery to Gaul. He had never put much faith in absolute propositions in systems in fact, hence he had already, before M. Broca communicated to the society the discovery of Dr. Thurnam, regarded the conclusions of M. Retzius and his disciples as very hypothetical. He would now come to another point. The partisans of the Aryanism of the modern French have attributed to the Aryan race a numerical preponderance over the pre-Celtic race. There is no record in history of a conquering race having exceeded in number the natives of any country. Even the army of Xerxes, the most formidable in number, exaggerated no doubt by ancient historians, was still inferior to the European, Asiatic and insular population of Greece. It was said at the last meeting that the Aryans had exterminated the indigenous race of Gaul. W. Edwards had already observed that such cases of extermination were unexampled, inasmuch as the conqueror generally prefers to make slaves of the vanquished. It had also been stated that the Roman influence in Gaul was insignificant, and that the army of occupation of the Romans consisted only of four legions, each of 6,000 men. But it has not been taken into consideration that this occupation continued during five centuries, so that the influence of but 24,000 must within such a space of time be enormous. But the great pivot of Aryanism is philology.

It is said, Celts, Germans, Slavonians, Greeks, Romans, Scandinavians, Dutch, Persians, Hindoos, etc., speak idioms derived from the Sanscrit, consequently they must be Arians. He was opposed to a system tending to constitute a proof of what the bones and the flesh of a people had been. The Aryanists when they perceived the break

* Continued from No. xiv, p. 288.

down of their argument, turned round and endeavoured to prove *anatomically* the value of philology. In order to arrive at such a demonstration the philologists imagined that the Aryan race possessed three principal forms of crania, the dolichocephalic, the brachycephalic, and the orthocephalic. Dolichocephalic, the Celts, Scandinavians, Frisians, Dutch Slavonians; brachycephalic, the Southern Germans and Slavonians; orthocephalic, the Greeks, Persians, Romans. If linguists were for a moment to forget philology they would be much embarrassed to justify so arbitrary a division. The only plausible reason which they give us is this: that three principal forms are now observed among the people speaking languages derived from the Sanskrit, and thus they give to the Aryan cranium a more or less multiple form just as philology requires it. Everyone must see at once how vicious such a mode of reasoning is. In the first place three forms of crania in one race sufficiently prove a diversity in blood (the principle that the diversity of form proves diversity of race has been numbers of times laid down by M. Pruner-Bey himself). Thus we have the pure Mongol race of which the Kalmuck is the type, which presents but one form—the brachycephalic. There is no dolichocephalic Kalmuck.

The negro race also presents but one form—dolichocephaly. There is no brachycephalic negro. Each of these stocks when pure has its proper form, why should it not be so with the Aryan race? History replies, intermixture has done it. But we have not only to do with *three* forms, for each of these three forms may be again subdivided. Thus the Roman oval is not the Persian nor the Hindoo oval; the Greek form is neither the Celtic nor the Scandinavian form, the Slavonian and Germanic crania are now dolichocephalic and few brachycephalic, and so it is with French and other crania. The Aryan oval has thus nothing peculiar; and the Finnish, Basque, and Arab ovals are as much oval as the Roman oval, which is presented to us as one of the prototypes of the oval Aryan cranium.

We would now part with the craniological characters and pass to others. If an anthropologist were to present to us a Mulatto, the issue of a Negro and a white woman, as the type of the Negro, we should simply laugh at him. Well, the system of philologists leads to the same thing; for there is perhaps less difference between such a Mulatto and a Negro than between the races called Aryan. Commencing by the face, compare the Slavonian face with that of a Persian, Roman, or Greek, or that of the Hindoo with the Celtic face, or the Scandinavian with the Hindoo or Greek face. The constitutions equally differ; and as to the coloration there is nothing more unlike.

To cover this heterogeneity it is simply said that the Celts, Ger-

mans, Slavonians, Greeks, etc., *resemble more the Hindoos than the Negroes and the Mongols*. Nobody doubts this, but this proves nothing. The Arabs, the Finns, the Basques, etc., are in the same condition, why exclude them from the Aryan group? The answer to this is always the same: philology requires it. But whilst there are writers who make light of these objections there are others who consider them sufficiently important to endeavour to explain them. Thus, Clavel (*Des Races Humaines*, etc.) and Prichard, tell us that the Aryan branch which peopled Northern Europe came by the country north of the Caspian, where the Mongolian race was already established, with which they intermixed; hence brachycephaly among some Aryans. As regards the second branch which peopled Southern Europe, that passed by Asia Minor, the Hellespont, and the Bosphorus; and M. Clavel adds that meeting here with the Semitic race they intermixed; hence the dolichocephaly in the Aryan race. Thus even according to M. Clavel, who is an Aryanist, the famous race when it arrived in Europe was no longer pure Aryan. All this proves that the Aryan theory is not satisfactory even to those that profess it, and those only make light of the objections to it who have only studied one side of the question. Finally in England that country of positivism and of cool reflection, the theory of Aryanism is much shaken and scarcely exists in form of a system.

The meeting then adjourned.

August 4, 1864.—M. Quatrefages presented to the society a memoir by M. Boucher de Perthes, “sur les ossements humains trouvés en 1863 et 1864 à Moulin-Quignon dans un terrain non remanié.” Report on the Excavations of Chamant (stone period). The sepulture of Chamant (long-barrow stone period) has already been described (Bulletins I, iv). The excavations interrupted during the winter have been resumed May 16 in the presence of Count de Lavaulx and many members of the society. The following objects were found in the last two chambers:—1. A magnificent flint hatchet, marvellously polished, the edge of which was still very keen. 2. Several bones of domestic ruminants. 3. A fragment of the jaw of a badger. 4. Fragments of rude pottery dried in the sun. 5. A large quantity of cinders and of wood charcoal. 6. Some carbonised bones of mammals. 7. Fragments of flint arrows and a large number of unworked flints, but which had evidently been deposited in the grave as none of them are found in the vicinity. 8. A large number of fragments of a greenish-grey stone, which when rubbed, and still more so when broken, exhales a strong odour of hydro-sulphuric acid. There exists no such stone in the vicinity. Some of the fragments are very small, others weigh above a kilogramme. No trace of metal was found. . . . The human

bones are very numerous; two crania only have preserved their shape though they are much decayed. One belonged to a child about seven years of age. The second skull of an adult male about thirty years of age had lost a portion of the face and one of the temporal bones; the cranium is oval, the frontal region much developed, the occipital region is still more so. The mastoid apophyses are long and voluminous, the occipital protuberance but little projecting, the occipital foramen is large and oval. Antero-poster. diameter maxim., 190; transv. maxim.; 142; cephalic index, 74.73; vertical basilo-bregmatic diameter, 137, vertical index of the cranium, 72.22; frontal diameter minim., 90. This cranium is thus dolichocephalic. Among the other three crania already mentioned (Bullet i, v) No. 2 is still more dolichocephalic, the two others are mesaticephalic. On the whole, of the four crania of Chamant two are decidedly dolichocephalic and two mesaticephalic. The absence of brachycephalic crania in this grade of the stone period is noteworthy. The long bones are generally of small dimensions. Everything indicates that this people were of a stature shorter than ours. All the humeri have been collected to study the question of the olecranian hole. Of thirty-four humeral bones from the sepulchral cavern of Orrouy (bronze age) eight presented a natural perforation in the olecranian fossa. In order to properly appreciate this fact it must be remembered that in the Merovingian sepulture of Chelles there were in 1,000 tombs which had been opened only five perforated humeri found (four of these are now in the museum of the society).

It is natural to ask whether this anomaly so rare at present may not at a remote period have been prevalent among the autochthonic races; but the facts do not yet authorise us to infer that there existed in this region a race characterised by a perforation of the olecranian fossa. In order to explain the frequent occurrence of this anomaly in the bones found at Orrouy, M. Broca thinks that it might have been the burial place of a family or of a small tribe in which by consanguine intermarriages this anomaly had become hereditary. Only one entire tibia has been found at Chamant, but tibial diaphyses were found in large numbers. M. Lagneau on this occasion made the interesting observation that the crest of the tibia was sharper than in those of modern skeletons, and that the diaphysis presents the form frequently seen in rachitic children. But the tibias of Chamant are not rachitic, and their conformation is not pathological. This observation has acquired some importance since the excavations made in the caverns and the osseous breccia of Gibraltar have furnished tibias similar to those found at Chamant, which results from an article by Mr. Busk in the *Reader*. The bones of Gibraltar seem to have been contemporary

with the rhinoceros, and are much older than those of Chamant, which date only from the *polished* stone period.

M. Broca read a paper *on the condition of the crania and skeletons in ancient graves*.—In crania taken from the earth and preserved for some centuries in ossuaries there is generally found a little dry mass of the volume of a walnut or an egg, sometimes hard and moveable, and frequently difficult to extract, which constitutes the desiccated and mummified brain. But when the cranium lies in the earth the cranium is filled up, which contributes not a little to its preservation. The excavations made in August and September 1863 in the Merovingian cemeteries of Cheller and Champlieu and those previously made by M. de Roucy in the Gallo-Roman cemetery of Mount Berny enabled M. Broca to study this question and to describe some curious phenomena.

At Mount Berny most of the bodies were deposited in graves and then covered with a sandy earth. These crania were found full of earth and a small quantity of fragments of stones which could easily be extracted. But at Cheller and Champlieu most of the bodies, according to the custom of the Merovingian period, had been deposited into stone troughs, some monoliths, some formed of two pieces, all covered with a large slab under a bed of vegetable earth, the thickness of which varied from fifty centimeters to one meter. The skeletons found in these graves were greatly altered and crumbled into pieces at the slightest contact. Their colour was yellowish red, they were extremely light, and their compact tissue decomposed into laminæ and foliated. This alteration is apparently owing to an interstitial development of small crystals of acid phosphate of lime. It is exclusively observed in close graves in which the bones after the decomposition of the flesh come into contact with a confined air.

In the graves where there is a sufficiency of earth to cover the skeletons the bones are much better preserved. The crania which were filled with earth were generally best preserved. The substance which they contained was so compact that it took time and patience to extract it by the introduction of a pointed stick into the foramen occipitale.

In certain crania, fragments of stones were found so large that they could only with great difficulty be dislodged. All objects found in the graves were also found in the crania, such as nummulites, snail shells, human teeth, phalanges, and in one case in a perfect cranium a piece of parietal bone four centimeters long and three and half centimeters broad. What most had struck him was the size and the number of solid bodies found in the crania. Both the stones and the bones found in them are deposited in the museum in separate packets.

M. Pouchet said that he could confirm what M. Broca had stated as to the introduction of foreign objects. He found at Rouen in the diluvium amongst other bones the femur of a horse. On shaking it he heard a noise denoting the presence of a foreign body though no external aperture could be detected. He subsequently traced the noise as due to the presence of a small fluviatile shell, which evidently could only have entered by the nutritious canal of the bone as no other aperture could be seen.

On the Frontal Region in Man and the Anthropomorphous Apes. By M. GRATIOLET.—M. Gratiolet called the attention of the Society to a fact which in his opinion had not hitherto been properly estimated, namely to that part of the face called the forehead, which is usually limited below by the superciliary arches and above by the implantation of the hair. We ought not, however, to confound the frontal bone which is found in all vertebræ with the forehead, which imparts to the face its intellectual physiognomy, which should only apply to that part of the frontal bone which covers the anterior lobes of the brain. He insisted upon this distinction because it had not been taken into account in the attempted approximation of the anthropomorphous apes to man. On examining a human cranium it will be found that the superior orbital plate is entirely covered by the brain, and that the curve of the frontal bone is, so to speak, moulded by the projection of the anterior lobes of the brain, so that in man forehead and frontal bone are nearly synonymous. On examining, however, the crania of the chimpanzee and of the gorilla, it will be found that in the chimpanzee the brain covers only the posterior third of the orbits, and that the two anterior thirds are covered by the development of the frontal sinuses. This disposition obtains still more in the gorilla, and in some the orbits are beyond the plane of the cerebral mass, the volume of which is thus greatly reduced. This may be demonstrated by a simple experiment. On driving a metallic pin into a human cranium above the superciliary ridge it will enter the cranial cavity. In the chimpanzee it may do so by giving the pin an oblique direction, but in the gorilla, after traversing the frontal sinuses, the pin does not enter the cranial but the orbital cavity. We may thus say that the chimpanzee has a forehead, though much smaller than that of man, whilst the gorilla is entirely deprived of it, and is only a well characterised Cynocephalus. In the profile of the chimpanzee we perceive a certain curvature which tends to diminish prognathism, whilst in the gorilla the line of prognathism is regularly continued from the summit of the frontal bone to the free extremity of the teeth, being only interrupted by the excessive prominence of the superciliary arches. The cranium of the chimpanzee thus more resembles that of man than the cranium of the gorilla.

On the Celtic Question. By M. PRUNER-BEY.—A tribe of Germans gave, within historical times, its name to the French nation. A Scandinavian tribe gave its name to the Russians. These denominations given by foreigners, of which there exist many examples, are sufficient to show that political names are, so to speak, owing to mere chance. Placed between the above-mentioned empires, Germany has also undergone its vicissitudes of denominations. Its modern name in French is derived from the confederation of some tribes (*Allemanni*) comprising scarcely the fourth of the Germanic peoples, and who themselves had originally no comprehensive name. It was only in the ninth century that the name *diotisc* (*deutsch*) designated the German idiom. The ancient name of *Germani* is only found in literature. The name of *Germani* is scarcely of German origin; it signifies in the Celtic languages *neighbour*, and was at Cæsar's and Tacitus' time applied to some small tribes (*Tungri*, *Condrusi*, *Eburones*, *Pæmani*, *Segni*) settled on the Rhine. Even some veritable Celts went by the name *Germani* (*Oretani*). This name, which had thus at first but a partial signification, became among the Romans and Greeks a general term for Gauls. After giving some further examples of the origin of Ethnic names, M. Pruner-Bey said that as a base of discussion on the Celts, he accepted the following conclusions arrived at by M. Brandes.

1. Before the conquest of Gaul by Cæsar, the Gauls and the Germans were too little known to enable the writers of that remote period to distinguish these two nations.

2. The Ethnic trunk, which now we term Celts, is the most western among the Indo-Europeans, and occupied at Cæsar's time a great portion of Europe, namely the countries on the Danube and some parts of Central Germany, Upper Italy, some parts of the Iberian peninsula, Gaul, and the British islands.

3. The elder branch of the Celtic stock, which advanced first towards the west, is the Gadhélic branch, which already, at the time indicated had been drawn back by the Kymric branch.

4. Already at the beginning of our era the Gadhéles occupied only Ireland and Scotland north of the wall of Severus. It is nevertheless possible that in southern Gaul some remnants of the Gadhélic people had maintained themselves.

5. In Britain, south of the wall, dwelt the Kymris, immigrated from different regions of Gaul, and chiefly from Belgium.

6. The Celts settled in continental Europe were Kymris, excepting some Gadhélic remnants in southern Gaul.

7. The Gaulish Celts had in the south intermixed with the Iberians, and in the north with the Germans.

8. Some of the Belgian tribes must be considered as Celticised Germans.

9. Remnants of the ancient Gaulish language and of Neo-Celtic idioms are met with in the French language and in the *patois* of the south.

10. Although the Celtic Britons had partly immigrated from Brittany, their affinity with the ancient Gauls is very probable.

Having thus given a succinct account of the results arrived at by modern science as regards the Celts in general, he would first throw a glance on the most illustrious branch of the Celts—the Gauls. And, first, as regards their language and monuments, he would quote the words of Houzé (*Etude sur la Signification des Noms de Lieux en France*, 1864), "When you tell me that our language, as well as our soil, is almost entirely deprived of Celtic, pre-Roman, essentially Gaulish monuments, I stop you short at once by requesting your attention to another species of linguistic medals, which, though they have undergone greater modifications than the names of individuals, are still distinctly recognised by a patient and scrutinising eye, and these are topographical names." And, in fact, the soil of France is covered with names which prove the presence of the Celts in masses, and the nature of their language.

M. Pruner-Bey then proceeded to compare the phonology, grammar, and vocabulary of the French with those of the Celtic language. As regards the vocabulary, he observed an erroneous idea had become current, namely, that but a small fraction of Celtic words could be traced as existing in French. M. Brandes has collected not less than four hundred French words which belonged to the Celtic idiom. Even this list seemed to him too restricted; for he felt sure that a considerable number of words not contained in the above list will be found to be of Celtic origin, though not yet acknowledged as such. . . . the French language, is compared with its neo-Latin sister languages, eminently Celtic and Gaulish. As regards Celtic archæology, he agreed with M. Bertrand that we must not look for the ancient Celts in the large dolmens. He believed, on the contrary, that where in our western countries we find cremation, urns containing ashes and bones more or less calcined, traces of agriculture and objects in bronze and copper, the presence of the Celt is more than probable; as the historical documents show that the Celt was in possession of these materials. . . . But, though everything indicates that in western Europe the Celts knew the use of metals, they did not at a remote time possess them all at once. Thus M. Wilde, speaking of Ireland, perhaps the most Celtic of all countries, says, that the transition from rude flint implements to metal objects must have been very gradual. That metal

was used by the king and the chiefs, and that stone weapons were in Ireland still in vogue in the ninth century by the side of iron weapons.

As regards Gaul, M. Martin represents the polished stone hatchet as characteristic of the Gauls. Archæology, proceeded M. Pruner-Bey, requires the assistance of anatomy in order to classify the human remains found in the graves with the objects which accompany them. The intermixture of the Celts with other peoples had already been recognised in antiquity. Thus there are cited Kelto-Iberians, Kelto-Ligures, Gallo-Greeks, Kelto-Scythians, to which he would add Kelto-Romans, Kelto-Germans, etc. This applied to the continent. As regards the islands, Tacitus, whilst recognising the resemblance of the Britons to the Gauls, and that of the Caledonians to the Germans, clearly separates the Silurians. We have no record as to Ireland, but from tradition we may infer the existence of at least two populations differing in colour apart from the swarms of immigrants mentioned in history and tradition. . . . Linguistically the Iberians are of right the oldest; for their language is not only a primitive language, but it also bears the stamp which characterises the hunting peoples of the new world. By an inconceivable inadvertence the Ligures and Iberians have been held of no account in a certain region of literature, and there were substituted for them the Gaëls, which have scarcely any historical existence on the Continent. The classification into Gaëls and Kymris has only a linguistic value. The Gaëlic, as a language, exists only in Scotland and Ireland. In this respect all the Celts of the Continent belong to the Kymric branch. A single branch among the Celts call themselves historically in their traditions *Kymro*; this is one of the tribes inhabiting Wales. There is no historical document which authorises us to divide the continental Celts into Gaëls and Kymris. Hence the confusion in the ethnogeny of France. He would, on the one hand, reinstate the Iberians and Ligures, and would, on the other hand, insist on the essentially Celtic and Aryan character of the great man of the French nation. The physical type of the ancient Celts (Gauls) can, as regards the ensemble of its character, scarcely give rise to any discussion, as the testimony of antiquity is unanimous in this respect. The form of their cranium presents almost the same type everywhere, as shown by the results obtained by anatomists who have paid special attention to craniology. . . .

Have the Celts inhabited the north, and especially Scandinavia? The historians, archæologists, and anthropologists of Scandinavia, excepting M. Worsaae, who substitutes for them the Goths, but gives no reasons, reply in the affirmative. The religious rites, as well as

the topographical names which they have left behind them, are, according to the Scandinavian authorities, Celtic. Moreover, the cranial type, and the height of the skeletons, seem to confirm it. There exist, moreover, two historical facts which deserve our attention. Tacitus places the Gotini in the north of Germany in proximity with the Guttones (Germans). He considers their idiom as being Celtic, and says that they worked iron mines. He also reports relative to the *Æstii* (Zeus places these among the Lithuanians), settled at his time on the shores of the Baltic: "*Æstiorum gentes . . . quibus ritus habitusque Suevorum, lingua Britannicæ propior. Insigne superstitionis formas aprorum gestant. Rarus ferri, frequens fustium usus. Frumenta ceterosque, fructus patientius quam pro solita Germanorum inertia laborant. Succinum glesum, vocant.*" Thus the language, the religious symbol of the boar, the club of a Gaulish Hercules, the term *glesum*, so deeply rooted in the Celtic languages, etc., all this is found in the same people. Can this be by mere chance?

M. Bonté, at a previous meeting, in order to combat the unity of the Aryan race, said: "The Negroes are dolichocephalic, the mongrels brachycephalic. Why should the Aryans present different forms of crania?" Now, what is applicable to one race is not necessarily applicable to all. Moreover, he contested the fact especially as regards the Mongols. Most of the Chinese and the Tunguses are dolichocephalic as well as the Vogules, who, according to De Baer, are eminently so. And the most homogeneous branch of the Aryan family, namely the Germans, also offer diversities in the cerebral cranium. From this fact we must infer that whatever may be the importance of this portion of the skeleton in other respects, it has only a secondary value when all the other characters agree, as is the case with the Celts, Germans, and Slavonians. M. Bonté said, that the latter resemble more the Mongols than the Scandinavians. Let him furnish us with the proofs. As regards the Basques, they are at present too much mixed; we must, on this question, before all, find the primitive Iberian type, which in respect to the cranium, is still under discussion.

With regard to the so-called historical data concerning the intermixture of the Aryans during their emigration from Asia to Europe, they are altogether apocryphal. Most anthropologists agree that there exist typical forms in all the branches of the Aryan stock, types which still persist despite that intermixture is in full activity. M. Pruner-Bey, after proceeding to discuss the question of the Aryans of India with regard to purity of blood and intermixture, as put by M. Bonté, continued: According to M. Bonté, different form of

cranium—different origin ; different colour of hair—different origin ; different stature—different origin, etc. Whither would such propositions lead if applied to ourselves. We do not resemble each other in the sense M. Bonté takes it. We consequently ought to be the representatives of a number of races, if not of species. In his essay on the *Unity of the Aryan Race*, he had insisted on the differences subsisting between the branches of the Aryan family. We must, however, take care not to exaggerate and compare only what is comparable. Thanks to M. Quatrefages, he had been enabled to compare a very ancient cranium of a Greek female with that of an ancient cranium of a Celtic female. After giving a detailed account of the structure of these two crania, illustrated by a table of comparative measurements, M. Pruner-Bey said in conclusion : Let those who would sift the question inspect my tables representing the measurements of individual crania, race by race, as deposited in the gallery, and tell me whether the individual differences in an established race do not present the same limits as those demonstrated in the female crania of two branches of the Aryan race. But when the Celtic woman is found so approximated to the Greek woman, the distance between the Hindoo and the Greek type is comparatively small. Finally, if the ladies of Cachemir are such as described by travellers, and if the Hindoo woman generally is such as depicted by a distinguished artist (M. Petrowich), it is impossible for me to detect an essential difference between her and a nut-brown woman of southern Italy, except that the latter has more *enbonpoint*. M. Pruner-Bey then exhibited a table of comparative measurements of the crania of two females, one of the ancient Celtic, and the second of the ancient Greek race.

M. Leguay presents to the Society several objects found in the excavations made for laying the foundations of the new barracks in the Cité of Paris. In describing the locality, M. Leguay observed : It is noteworthy that the soil of the island called la Cité is formed of alluvium protected by a solid portion upon which the church *Notre Dame* now stands. The soil of this spot presented in the thirteenth century sufficient resistance to build upon it this immense structure. It is now ascertained that this edifice was not, as so frequently asserted, built upon piles. The objects presented consisted of a hand millstone about twenty-three centimeters in diameter, and fifteen centimeters thick, a double antler of the common stag, sawed at its lower part, and probably destined to serve as a handle for some flint or metal instrument ; and a horn belonging, according to M. Lartet, to a young *Bos primigenius*, or *urus*, also sawed at its lower part.

M. Pouchet doubted whether the horn had been separated by a saw ; it would be interesting to examine by what process the section had been made.

M. Leguay then called attention to a discovery made by him at Varenne-Saint-Hilaire of a small monument of the stone period. He could not at present say whether this monument was erected as a memorial, or whether it contains the bones of an individual; he expected to be enabled to give a better description after further explorations.

M. Leguay then showed to the Society the plan he had sketched of this sepulchre, some worked flints of various shapes, a large quantity of unworked small stones found in the earth covering the grave, bones and teeth of ruminants not burned, burnt bones of animals not specified; all these bones were in a fragmentary condition; and, finally, a large quantity of fragments of pottery, broken off from vases belonging to the stone period.

The meeting then adjourned.

August 18th, 1864.—M. Pruner-Bey rectified some passages attributed to him. He is made to say that the antero-posterior diameter of the pelvis of the negro exceeds the transverse diameter; he never made such an assertion, and the passages quoted have no such signification. It has also been stated that the tickets on the casts of the Basque crania deposited by him in the gallery of the Museum had been written by himself, which is not the case as they were written by the employés of the Museum.

Excavations at Chaffant (Vienne).—M. Leguay presented to the Society nineteen flint knives found in the grottoes of Chaffant, collected by MM. Meillet and Brouillet. These objects presented, by their forms, two distinct types. According to his classification of the flints of the stone period, he placed the objects found in the grottoes of Chaffant in the first period of the second epoch, which is that preceding the epoch of polished stones. MM. Meillet and Brouillet have found in these grottoes worked bones, which they intend to describe in a separate work. M. Leguay gave some further particulars in the excavations in the Cité.

The Secretary-General placed upon the table some worked flints sent by M. Meillet, of Poitiers, found in the beds at Pressigny-le-Grand, which gave rise to a discussion. Some particulars about these beds will be found in a subsequent paper by M. Leguay.

A paper by Giustiniano Nicolucci on some Phœnician crania. (Inserted already in the *Anthropological Review*.)

Dr. Barnard Davis's paper on the Neanderthal skull was then read by M. Giral dés, who had undertaken its translation.

M. Broca said: The Neanderthal cranium has given rise to various opposite interpretations; Dr. Barnard Davis has given a new one which deserves consideration. It is certain that the ossification of

some sutures supervening before the complete development of the head may induce considerable deformations. This fact has already been pointed out by Virchow, and is confirmed by several specimens in our Museum. In all these specimens I have remarked that the deformation had for its consequence the destruction of the symmetry of the cranium; it is, however, clear that if the synostosis manifests itself simultaneously and in the same degree in two symmetric sutures, the cranium, though deformed, may preserve its symmetry. The similitude of both halves of the Neanderthal cranium cannot, therefore, be invoked as a decisive objection to the interpretation of Dr. B. Davis; it only tends to diminish its probability. I do not intend here to discuss the Neanderthal question, which is still obscure, and upon which I have as yet formed no fixed opinion, but I take this opportunity to draw attention to a circumstance which, by my own negligence, may have misled Dr. Barnard Davis. I have sent him the casts of some of our crania, and specially that of No. 8 of the series of Orrouy (bronze age). This cranium, the form of which is so remarkable, presented in the place of one temporal squama an aperture of several centimetres which was filled up with pasteboard. The result was, that in the casts the squamous suture appears obliterated, and Dr. B. Davis, to whom I had not communicated this circumstance, naturally concluded that the suture in question had been the seat of a premature synostosis. He was thus led to suppose that the particular form of the cranium No. 8 of Orrouy might, like that of the two crania described by him, be attributed to synostosis. When I was informed by letter of this mistake of mine, I immediately wrote to that effect to our eminent colleague, who at once discarded the cranium. But as his opinion concerning this cranium had already been published in England, I felt bound here to state that the fault was mine. Moreover, the casts of this cranium being now deposited in the principal museums of Europe, it is as well to caution observers against being led into error by the circumstance I have mentioned.

On the Crania of Orrouy. By M. BROCA.—M. Broca having been led to speak of cranium No. 8 of Orrouy, I beg permission to offer some remarks on the truly bizarre conformation of this cranium. The three most striking characters are: the narrowness and small elevation of the forehead; the enormous development of the parieto-occipital region, and the singular flattening on both sides at the level of the parieto-mastoido-occipital suture. This flattening which, by abbreviation, I shall call super-mastoidian, is perfectly symmetric on both sides. I add a fourth character, namely the considerable capacity of this cranium, which measures 1699 cubic centimeters,

i.e., 213 centimetre cubes beyond the mean capacity of modern crania of Paris.

A single glance at this cranium leads to the belief that it is deformed either by some mechanical action or by some pathological cause. The hypothesis of an artificial deformation can be scarcely entertained, for it would require the skill of modern surgical instrument makers to produce a mechanism capable of producing a compression from below upwards, and from the outside inwards at the level of the two sutures which are the seat of the flattening. It is impossible to admit that the ancient population of Orrouy had such means at their disposal, and I may add that among the numerous deformations described by our venerable colleague, M. Gosse, there is none resembling the conformation of the cranium of Orrouy.

The hypothesis of a pathological deformation not by hydrocephaly, of which there exists no trace but of cerebral hypertrophy, might find some support in the considerable development of the internal capacity of the cranium. But on examining the other crania of the series we are led to recognise that this super-mastoidian flattening is an hereditary character in the population of Orrouy. . . . It appears to me very probable that the super-mastoidian flattening is one of those variations which occur accidentally in an individual, and are then transmitted through a number of generations, as observed in polydactyly and other anomalies. Such family characters may, as is well known, survive intermixture, but eventually they disappear. I already had occasion to observe that the cavern of Orrouy seemed to have been the sepulchre of a small tribe, or perhaps of a single family. This is another circumstance supporting this opinion. In this sepulchre of Orrouy were found thirty-two humeral bones, of which eight, now in our museum, are pierced in the olecranian fossa. This anomaly, perhaps not so rare formerly as now in the European races, was very frequent in the population of Orrouy, owing to heredity, favoured probably by consanguinity. It is thus that Tiedemann explained that most of the inhabitants of a small German village presented the anomaly of a premature bifurcation of the humeral artery. I am thus led to believe that the unusual characters of the crania of Orrouy are individual variations propagated by transmission through several generations. This hypothesis seems to me the most probable as these characters are not met with in other localities.

M. Giraudeau observed that M. Broca seems to think that strong pressure was required to deform the cranium; but that he recollected a case of a notable deformation being produced in the cranium of a child in consequence of the retraction of a cicatrice from a burn.

The form of the cranium No. 8 is moreover not so symmetrical as stated by M. Broca. We should be very cautious in appreciating deformations of unknown individuals. A partial hypertrophy of the brain cysts, consecutive to meningeal hemorrhages, hydatids, etc., may produce deformations tending to lead us into error.

M. Broca said that he agreed with M. Giraldés that apparently slight causes, whose action is continuous, may in time produce considerable deformations; but in the particular case of the crania of Orrouy, the super-mastoidian flattening cannot be considered as pathological; first, because it exists symmetrically on both sides, and specially because it is found in a large portion of the crania of this series.

[*To be continued.*]

ANTHROPOLOGY AT THE BRITISH ASSOCIATION.

WE understand that the President of the Anthropological Society of London has received a large number of congratulations from anthropologists, both in this country and especially from abroad, at the recent recognition of the science of anthropology by the British Association. We feel it our duty to join in their chorus of congratulation, more however from sympathy than from a belief that the present position of the science of man in the Association is satisfactorily or finally settled. The anthropologists have won a great and decided victory. Under such circumstances, it behoves them to be contented at least for a time. There is a very general feeling that things will soon right themselves. The first great step has now been gained, and we venture to assert without fear of contradiction that the real genuine scientific work done in the department of anthropology was not surpassed by any of the sections during the past meeting of the Association. This must be highly satisfactory both to anthropologists and to those of the authorities of the Association who were instrumental in bringing about the recognition of the science of man as a special branch of science.

The Nottingham meeting of the Association was on the whole a decided success. There was an earnestness about the whole proceedings which could not fail to do good to the cause of science. The admirable address of the President, Mr. W. R. Grove, was something which at once gave a tone to the meeting. It will long be remem-

bered as one of the addresses which really helped to advance the cause of science. We could wish that the authorities of the Association would bear this object more continually in mind. We fear that this is sometimes forgotten by them. It is not our duty or business, however, on this occasion to dwell on the general management of the Association. Our duty will be best discharged if we give a short account of what was done to advance anthropology by the Association.

We shall commence by giving a few extracts from Mr. Grove's address, and then give a summary of the work done in the Department of Anthropology. On future occasions, we may print some of these communications at length.

"But there is another difficulty in the way of tracing a given organism to its parent form, which, from our conventional mode of tracing genealogies, is never looked upon in its proper light.

"Where are we to look for the remote ancestor of a given form? Each of us, supposing none of our progenitors to have intermarried with relatives, would have had at or about the period of the Norman Conquest upwards of a hundred million direct ancestors of that generation, and if we add the intermediate ancestors, double that number. As each individual has a male and female parent, we have only to multiply by two for each thirty years, the average duration of a generation, and it will give the above result.

"Let anyone assume that one of his ancestors at the time of the Norman Conquest was a Moor, another a Celt, and a third a Laplander, and that these three were preserved while all the others were lost, he would never recognise either of them as his ancestor; he would only have the one-hundred millionth of the blood of each of them, and as far as they were concerned there would be no perceptible sign of identity of race.

"But the problem is more complex than that which I have stated; at the time of the Conquest there were hardly a hundred million people in Europe, it follows that a great number of the ancestors of the *propositus* must have intermarried with relations, and then the pedigree, going back to the time of the Conquest, instead of being represented by diverging lines, would form a network so tangled that no skill could unravel it; the law of probabilities would indicate that any two people in the same country, taken at hazard, would not have many generations to go back before they would find a common ancestor, who probably, could they have seen him or her in the life, had no traceable resemblance to either of them. Thus two animals of a very different form, and of what would be termed very different species, might have a common geological ancestor, and yet the skill of no comparative anatomist could trace the descent.

"From the long continued conventional habit of tracing pedigrees through the male ancestor, we forget in talking of progenitors that each individual has a mother as well as a father; and there is no reason to suppose that he has in him less of the blood of the one than of the other.

"The recent discoveries in palæontology show us that man existed on this planet at an epoch far anterior to that commonly assigned to him. The instruments connected with human remains, and indisputably the work of human hands, show that to these remote periods the term civilisation could hardly be applied—chipped flints of the rudest construction, probably, in the earlier cases, fabricated by holding an amorphous flint in the hand and chipping off portions of it by striking it against a larger stone or rock; then, as time suggested improvements, it would be more carefully shaped, and another stone used as a tool; then (at what interval we can hardly guess) it would be ground, then roughly polished, and so on,—subsequently bronze weapons, and, nearly the last before we come to historical periods, iron. Such an apparently simple invention as a wheel must, in all probability, have been far subsequent to the rude hunting-tools or weapons of war to which I have alluded.

"A little step-by-step reasoning will convince the unprejudiced that what we call civilisation must have been a gradual process; can it be supposed that the inhabitants of Central America or of Egypt suddenly and what is called instinctively built their cities, carved and ornamented their monuments? if not, if they must have learned to construct such erections, did it not take time to acquire such learning, to invent tools as occasion required, contrivances to raise weights, rules or laws by which men acted in concert to effect the design? Did not all this require time? and if, as the evidence of historical times shows, invention marches with a geometrical progression, how slow must have been the earlier steps! If even now habit, and prejudice resulting therefrom, vested interests, etc., retard for some time the general application of a new invention, what must have been the degree of retardation among the comparatively uneducated beings which then existed?

"The doctrine of continuity is not solely applicable to physical inquiries. The same modes of thought which lead us to see continuity in the field of the microscope as in the universe, in infinity downwards as in infinity upwards, will lead us to see it in the history of our own race; the revolutionary ideas of the so-called natural rights of man, and *à priori* reasoning from what are termed first principles, are far more unsound and give us far less ground for improvement of the race than the study of the gradual progressive changes arising from changed circumstances, changed wants, changed habits. Our language, our social institutions, our laws, the constitution of which we are proud, are the growth of time, the product of slow adaptations, resulting from continuous struggles. Happily in this country, though our philosophical writers do not always recognise it, practical experience has taught us to improve rather than to remodel; we follow the law of nature and avoid cataclysms.

"The superiority of man over other animals inhabiting this planet, of civilised over savage man, and of the more civilised over the less civilised, is proportioned to the extent which his thought can grasp of the past and of the future. His memory reaches further back, his capability of prediction reaches further forward in proportion as his

knowledge increases. He has not only personal memory which brings to his mind at will the events of his individual life,—he has history, the memory of the race; he has geology, the history of the planet; he has astronomy, the geology of other worlds. Whence does the conviction to which I have alluded, that each material form bears in itself the records of its past history, arise? Is it not from the belief in continuity? Does not the worn hollow on the rock record the action of the tide, its stratified layers the slow deposition by which it was formed, the organic remains imbedded in it the beings living at the times these layers were deposited, so that from a fragment of stone we can get the history of a period myriads of years ago? From a fragment of bronze we may get the history of our race at a period antecedent to tradition. As science advances, our power of reading this history improves and is extended. Saturn's ring may help us to a knowledge of how our solar system developed itself, for it as surely contains that history as the rock contains the record of its own formation.

"By this patient investigation how much have we already learned, which the most civilised of ancient human races ignored! While in ethics, in politics, in poetry, in sculpture, in painting, we have scarcely, if at all, advanced beyond the highest intellects of ancient Greece or Italy, how great are the steps we have made in physical science and its applications!

"But how much more may we not expect to know!"

In the department of Anthropology, Mr. A. R. Wallace, President,

The PRESIDENT congratulated the audience on the inauguration of a department in which all students of man, by whatever name they might call themselves, could meet harmoniously to state their views and opinions, with the sole object of eliminating truth. Anthropology the President defined as the science which contemplates man under all his varied aspects—as an animal and as a moral and intellectual being, in his relations to lower organisms, to his fellow man, and to the universe. The anthropologist sought to collect together and systematise the facts and the laws which had been brought to light by all those branches of study which, directly or indirectly, had man for their object.

The comparative anatomist and the zoologist compare his structure with that of other animals, take note of their likenesses and differences, determine their degrees of affinity, and seek after the common plan of their organisation and the law of their development. The psychologist studies the mind of man, its mode of action and development, compares it with the instincts and the reasoning faculties of the lower animals, and ever aims at the solution of the greatest of problems—whence and what is mind.

The historian collects and arranges the facts of man's progress in recent times. The geographer determines the localities of the various races that now inhabit the earth, their manners, customs, and physical characteristics. The archæologist seeks, by studying the remains of man and his works, to supplement written history, and to carry back our knowledge of man's physical, mental, and moral con-

dition, into *pre-historic times*. The geologist extends this kind of knowledge to a still earlier epoch, by proving that man co-existed with numerous animals now extinct, and inhabited Europe at so remote a period that the very contour of its surface, the form of its hills and valleys, no less than its climate, vegetation and geology, were materially different from what they now are, or ever have been during the epoch of authentic history.

The philologist devotes himself to the study of human speech, and through it seeks to trace out the chief migrations of nations, and the common origin of many of the races of mankind. And lastly, the phrenologist and craniologist have created special sciences out of the study of the human brain and skull. Considering the brain as the organ of the mind, the phrenologist seeks to discover in what way they correspond to each other, and to connect mental peculiarities with the form and dimensions of the brain as indicated by the corresponding form of its bony covering. The craniologist confining his attention to the skull as an indication of race, endeavours to trace out the affinities of modern and ancient races of men, by the various forms and dimensions of their crania.

These various studies have hitherto been pursued separately. There has been great division of labour, but no combination of results.

Now it is our object as anthropologists to accept the well ascertained conclusions which have been arrived at by the students of all these various sciences, to search after every new fact which may throw additional light upon any of them, and, as far as we are able, to combine and generalise the whole of the information thus obtained.

We cannot therefore afford to neglect any facts relating to man, however trivial, unmeaning or distasteful, some of them may appear to us. Each custom, superstition or belief of savage or of civilised man, may guide us towards an explanation of their origin in common tendencies of the human mind. Each peculiarity of form, colour, or constitution, may give us a clue to the affinities of an obscure race. The anthropologist must ever bear in mind, that as the object of his study is *man*, nothing pertaining to or characteristic of man can be unworthy of his attention.

It will be only after we have brought together and arranged all the facts and principles which have been established by the various special studies to which I have alluded, that we shall be in a condition to determine the particular lines of investigation most needed to complete our knowledge of man; and may hope ultimately to arrive at some definite conclusions on the great problems which must interest us all—the questions of the origin, the nature, and the destiny of the human race.

I would beg to recollect also, that *here* we must treat all these problems as purely questions of science, to be decided solely by facts, and by legitimate deductions from facts. We can accept no conclusions as authoritative that have not been thus established. Our sole object is to find out for ourselves what is our true nature—to feel our way cautiously step by step into the dark and mysterious past of human history—to study man under every phase and aspect of his

present condition ; and from the knowledge thus gained to derive (as we cannot fail to do) some assistance in our attempts to govern and improve uncivilised tribes, some guidance in our own national and individual progress.

Dr. HUNT proposed a vote of thanks to the Chairman for his excellent address, remarking that the meeting would agree with him that it had only one fault—that of being too short.

Dr. FAIRBANK seconded the motion, which was carried amid applause.

Mr. C. CARTER BLAKE *On a Human Jaw from the Belgian Bone Caves*.—The jaw was discovered in the Trou de la Naulette, near Dinant, Belgium, by Dr. E. Dupont, acting under the orders of the Belgian government. It was found in undisturbed sandy clay (*lehm*) at a depth of $3\frac{1}{2}$ metres (11 ft. 4 ins.), the clay alternating with stalagmite, and affording evidences of gradual deposition. The characters which it presented were very different to those exhibited by the jaws of the white races of the present day, and presented in many points an exaggeration of the characters of the lowest Australian jaws. In some respects it differed widely from the human jaws known to anatomists, and afforded great resemblance to the jaw of the young orang (*Simia morio*). Mr. Blake gave a careful comparison between this jaw and certain typical jaws selected from three thousand which he had examined, and summed up by expressing his belief that the jaw was of vast though unascertained antiquity, and that on the whole the jaw more closely resembled those of the Sclavonic races than any other jaw, while in some points it presented an analogy to and exaggeration of the Australian.

The Rev. DUNBAR HEATH remarked on the uncertainty attending some of the discoveries of human remains, and on the greater apparent authenticity of the present "find." He should like to know whether reindeer existed at that period, and why only one bone should be found so distinctly ape-like. Belgium was in the reindeer period inhabited by a Tartar race, but it seemed that at a vastly more remote period there were inhabitants of an ape-like character. He could only account for this on the theory of development.

Dr. B. DAVIS said, supposing it to be human, he was inclined to think that it can hardly be regarded as normal ; but, from the great thickness in the body of the jaw, a sort of shelf of bone inside, it is most likely pathological, i. e., affected with osteosclerosis. He also confessed that he could not but admire the elaborate examination of the jaw given by Mr. Carter Blake.

After some remarks from Dr. HUNT, Mr. REDDIE, and Mr. J. GRATTAN,

The CHAIRMAN remarked that the bone was very interesting irrespective of its antiquity ; for, if a race having this peculiar formation were found to exist now, it would be just as much a link between man and the larger apes as if it existed many thousand years ago. The layers of stalagmite indicated great antiquity.

Mr. BLAKE, in reply to Dr. Davis, said he had never seen any pathological specimen showing the peculiarities of the jaw in question.

A similar jaw had been found at Arcis-sur-Aube in France. Some of the Slavonic races manifested an approach to this deviation from the general type.

Mr. W. J. BLACK *On Colonies in South Africa.*

Mr. WILKINSON *On the Races in Madagascar.*

The CHAIRMAN said it was a very remarkable thing that people with a Malayan element in the language should be found in the interior of Madagascar, the Malays being peculiarly a semi-marine people. It might be that a party landed on that island, and had to fight their way into the interior, becoming ultimately of sufficient strength to conquer the native inhabitants.

Mr. E. L. LAYARD said, that during a brief visit to Madagascar he saw no indications of Malayan origin.

Mr. CARTER BLAKE said, that the whole weight of the craniological evidence appeared to be directly against the hypothesis of the Malay descent of the inhabitants of Madagascar. The skulls of many Hovas were now in the Anthropological Gallery of the Paris Museum. These offered numerous and wide marks of distinction from the skulls of Malays. The limits of variation of Negro and Negroid types were not yet ascertained; but the truest affinities of the Hovas appeared to him to be with the natives of Eastern Africa.

Dr. BARNARD DAVIS regretted that he had but one skull, and that an imperfect one; still he considered the valuable evidence derived from the collection of Hovas skulls in Paris, given by Mr. Carter Blake, was conclusive as to their being of Negroid race. The assertion that the Hovas spoke a Malay tongue was not supported by the researches of Mr. Crawford, a high authority on these points, and who accounted in the most satisfactory manner for the few Malay words in the language—language itself being by no means a test of origin. All authentic figures of the people of Madagascar represent them with curly, crisp or woolly hair, never with *straight* hair like Malays, as had been asserted.

The CHAIRMAN thought the straight hair, complexion, and countenance of the Hovas were so distinct from the African type as to prove that they had Malayan blood. The proof was independent and corroborative of that afforded by their language.

Mr. JOHN GRATTAN *on a New Craniometer.*—The instrument is highly ingenious, though somewhat complicated, and possesses the merit of affording correct delineations of the skull as well as accurate measurement. It consists of two parts: first, a contrivance similar to that used for swinging the mariner's compass fastened vertically to a perpendicular brass rod fixed in a table of wood; second, on a moveable base another brass rod furnished with two arms of the same length, one curved for passing over the surface of the cranium, the other furnished with a pencil and fastened by means of a lever so as to move in a circle round the fixed point of the cranium.

The cranium to be measured is fixed by the auditory foramen, and the naso-frontal suture is taken as the centre from which to measure. Outlines of the skull may be taken in any direction with great rapidity and accuracy, and by an ingenious contrivance these may be so fixed

together as to give a very fair idea of the general form. One great advantage of this invention is that a correct representation of a skull may be sent to any part, and its relative proportions and angles ascertained in accordance with any scale which may be adopted.

The CHAIRMAN: Everyone must have been struck with the difficulty of taking accurate measurements of the skull—a difficulty which has been rendered all the more apparent by the variety of methods which have been proposed for overcoming it. This form of a skull should always be separated from its absolute bulk. By this invention the angular measurements, form, and also dimensions are all given and can readily be reduced to either the English or foreign standard.]

Professor G. BUSK, F.R.S., stated that he was in the habit of using an instrument which he considered preferable to the one exhibited as being more simple and less expensive. It was constructed on the principle of a common shoemaker's gauge, consisting of a straight stem about twelve inches long, having an arm jointed to it at one end, which can be opened out to an exact right angle, and a second arm which can be slid up and down the stem also at a right angle. These arms should be six inches long. The stem and arms are graduated in inches and tenths on one side, and centimetres and millimetres on the other. The auditory foramen is taken as the fixed point and a needle in a piece of cork fixed in each. To take the distance in radial measurement, the stem is placed upon the point which the radial line is to be measured, and the arms are brought down on each side over the needle in the auditory foramen and the degree pointed at, which will be the same on both sides if the instrument is held properly, will be the radius sought. For comparison, Professor Busk takes as a vertical line one drawn from the external auditory meatus to the junction of the coronal and sagittal sutures. This as an invariable standard was first suggested by l'Abbé Frère. As a horizontal or base line he used one crossing the vertical at right angles at the centre of the auditory meatus, coincident in most cases with the floor of the nostrils. The object of a drawing is to represent things as they are seen. A sketch may be mathematically correct, and yet not convey so good an idea as a perspective view would. It is not, however, easy to give accurate measurements in such a figure, and so he was in the habit of giving five different figures of the same skull by means of the camera lucida. Professor Busk was of opinion that the craniometer exhibited was too complicated and expensive for ordinary purposes.

Mr. WESLEY, F.A.S.L., said that other instruments less complicated, such as those used by M. Broca and Professor Huxley answered very well. He agreed with Professor Busk that perspective view conveys the best idea of the general appearance of the skull, but was of opinion that the invention exhibited was very useful for correct measurement.

Mr. CARTER BLAKE was of opinion that all angular measurements Mr. Grattan made could be correctly made with Professor Busk's instrument, and protested against the wish to reduce delineations of the skull to mathematical instead of perspective drawings.

Sir J. LUBBOCK thought that persons clever with the pencil might

be able to make a correct representation of the skull without the aid of such a contrivance as the one exhibited, but was of opinion that to workers not so gifted it would prove exceedingly valuable.

Mr. J. GRATTAN, in reply to the various speakers, stated that his object was not so much the production of a striking picture as the attainment of exact measurements; by which it is more easy to detect slight differences than by perspective drawings. In practice he found the *camera lucida* not to be depended upon, in fact the drawings obtained by it were of very little value.

The CHAIRMAN observed that the fact that others had endeavoured with more or less success to construct instruments for the same purposes, did not detract from the credit due to Mr. Grattan as the inventor of the one exhibited. He was of opinion that for rapidity and accuracy no instrument yet invented equalled that of Mr. Grattan's, and that the question of price ought not to be taken as an objection where accuracy was desired.

Mr. E. B. TYLOR on *Phenomena of the Higher Civilisation traceable to a rudimental origin among Savage Tribes*.—After remarking that it was important to us to study the habits of the lower races, he said the stories of uncivilised races about their gods and heroes, cosmogonies, transformations, and origins, show us the mythologic stage underlies the poetry and religion of the Greeks and other nations, from among whom the highest modern civilisation has grown. The New Zealand myths held that we have had two primæval ancestors, a father and a mother, Rangi and Papa, heaven and earth. The earth, out of which all things are produced is our mother; the protecting and over-ruling heaven is our father. There he explained were the record of events. After a lengthy reference to the habits, literature, and especially to the fasting and worship of tribes. In conclusion he referred to primitive marriages as connected with the development of races from savage to civilised life, through the different stages of exogamy or the law of marriage out one's tribe. He believed one of the services of savage tribes was to enable civilised men to understand their position in the world.

Rev. DUNBAR I. HEATH was of opinion that the paper should have been styled "The Origin of Existing Errors in the Mythology of Savage Tribes." Mythology is a rude attempt to account for the phenomena of nature just as physiology is an attempt to explain the facts in natural history. The savage owing to the narrow limits of his observation takes erroneous views of natural phenomena as we now see was the case with ourselves when our knowledge was more imperfect. In the same manner that we used to speak of the "principle" of things, as of the wind, etc., etc. So the savage used the term "god."

Sir J. LUBBOCK also was of opinion that the evidence brought forward was, more correctly speaking, a relic of lower civilisations than a proof of the origin of those which now exist. Archæologists are now of opinion that to arrive at a correct conception of antiquity, relics should be compared with objects used for similar purposes by existing savage tribes. In reference to the custom of destroying, as by fire, objects to be buried with the dead, which exists among

savage tribes, he pointed out what he believed to be misconceptions of motive.

I. When implements have been found burnt it has been supposed that it was intended as a protection against robbery. He believed that the real reason was that the savage had endeavoured in this manner to make them useful to the departed by killing them, so that the spirit of the one might go to the spirit of the other.

II. The curious custom of making things in resemblance of an enemy, observed in savage tribes, has led to the opinion that these implements might have been burnt with some idea of thereby injuring the departed. This he did not believe.

Mr. GEORGE DAWSON was of opinion that a great amount of knowledge might be attained by the study of savage tribes. There was nothing of novelty in the paper, as the subject had been treated of by authors from Lord Bacon downwards; indeed, a valuable literature exists.

Mr. REDDIE considered it doubtful whether savages understood the meaning of their customs and traditions. He believed they did not.

Mr. CARTER BLAKE wished to know, taking all the races of men, where the author would draw the line of distinction between civilised and savage? And supposing the traditions of the Semitic nations resembled those of certain savage tribes, was the same law of evolution applicable to both?

Mr. TYLOR, in reply, said: The question arises whether the title should contain a paper, or merely indicate the line of thought pursued? He was of the latter opinion. Perhaps a better title for the paper would have been: "Phenomena in the higher civilisations traceable in origin to the myths of the lower." He agreed with Sir J. Lubbock as to the motive savages had in burying implements with the dead. Though he believed that in most instances the object they had in burning them was to send their souls to the departed, and not to protect them from robbery, yet cases were on record in which there could be no doubt that this was likewise the intention. For instance, the Dyaks of Borneo did not originally destroy them, but when they found that the Malays rifled the graves, they then adopted the custom. He believed that whether destroyed or not, the object in placing them there was the same. In reference to the literature of the subject of the paper, he pointed out the difference between vague general remarks, and generalisations the result of careful study and research. It had been asked whether savages understood the meaning of their traditions? Some do—the New Zealanders, for instance, who believe that Rangi and Papa are the parents of everything, when asked who they each are, will point to heaven, and say, "That is Rangi," and to the earth, and say, "That is Papa."

Dr. HUNT, "*On the Principle of Natural Selection applied to Anthropology, in reply to views propounded by some of Mr. Darwin's Disciples.*"—[See page 320 of the *Anthropological Review*.]

Mr. REDDIE was of opinion that in the present state of our knowledge we had better take our stand as earnest and patient inquirers than as the supporters of theories. He thought that Psychology was

a better test of the difference between man and the apes than anatomy; that in intellect there was a far greater difference between the lowest man and the highest ape than between the highest type of man and the lowest. He considered that we have a case of change in type taking place before our eyes in the case of the North American. Although sufficient time has not yet elapsed to produce a unity in type among modern Americans, a slight change is produced in the same direction in each of the many nationalities represented among the immigrants. The individuals to be acted upon vary so much in the first instance, that a long time must elapse before a complete unity of type is produced, but sufficient change is observed to show what may be expected. Not sufficient attention has been paid to the fact that the same change of type is observed in those who have gone to live in America as in those born there. It would be interesting to know whether light and dark races are equally affected in this change. We are apt to confine our attention to the consideration of peoples now extinct, to the neglect of people now living. America is worthy of more attention than has been given to it. In Africa there is a great difference between the tribes. Are they distinct peoples? He believed they are not. Messrs. Baker and Beke believe that the African races are getting lower and lower, and he was of the same opinion. In the Irish, also, degradation is observed. When types become fixed, a great length of time would be required to change them. At first the modification might be rapid, but would probably afterwards proceed very slowly. He was strongly of opinion that the theory of unity of origin is more logical than the opposite one of diversity.

Dr. GRIERSON referred to the Book of Genesis, but was informed by the Chairman that it was not considered an authority in matters of science. As instances of change in type he mentioned the various breeds of dogs and pigeons, and was of opinion that the existing differences between the various divisions of the human race were not so great as those which we know have taken place in dogs and pigeons.

Rev. DUNBAR I. HEATH could not believe without evidence that the Newfoundland dog, which was unknown till the discovery of that island, was sprung from the same stock as the greyhound, figures of which are found on many ancient monuments. It should be remembered that the author had not stated that the various existing races of man were sprung from any at present in existence.

Professor BUSK objected to the manner in which the subject had been brought before the meeting. It should stand on its own merits, and not on authority. The opinions quoted were of very different value, and yet they were mixed together as though they were of the same. The theory brought forward by Mr. Darwin and advocated by Mr. Huxley, appears the only one yet advanced that will satisfactorily account for existing differences.

Mr. CARTER BLAKE, when recently engaged on the continent in the examination of evidence of man's early existence, was sorry to find that English anthropologists were thought to have settled down con-

tented with the Darwinian hypothesis. The only evidence brought forward by the disciples of Mr. Darwin applicable to the genesis of man were the Neanderthal skull and the jaw from Moulin-Quignon. The Neander skull was proved to be a curious pathological specimen, and the Moulin-Quignon jaw could not be accepted as authentic. There is no evidence whatever that ancient peoples approached the characters of the ape more than those which now exist. The lowest races—as, for instance, the Australian—possess characters far more Simian than any ancient remains yet brought forward by the disciples of Mr. Darwin. The differences observed in the various races, if not *ab origine*, must result from some continuously active, operative law, but that is not necessarily the same as the theory of natural selection. He was not prepared to accept Mr. Darwin's hypothesis as a ruling guide.

Professor BUSK did not agree with Mr. Carter Blake in his opinion on the jaw from Moulin-Quignon.

Mr. D. W. NASH wished to ask two questions: first, is it necessary, in starting a discussion on the origin of man, to assume either unity or diversity? Second, if such is the case, which opinion was the most philosophical? As “unity of force” is becoming the generally received opinion, from being the more philosophical, so in anthropology the tendency of opinion will be towards unity of origin. The object of the paper was to inquire whether Mr. Darwin's hypothesis had been properly applied, and not to discuss the origin of man.

Mr. WALLACE said that the object of the paper was to consider the use which had been made of Mr. Darwin's theory by some of his followers, and not to discuss the question of monogeny or polygeny. Darwin's theory, as far as it goes, may be considered as nearly proved as any theory can be. He never drew any proof from man, but that is no reason why the theory should not be applied to the human race. The chief points in Mr. Darwin's theory are: first, that certain species, if allowed to grow without restriction, would each of them soon fill the earth; second, that a struggle for existence takes place, that the stronger individuals live, and the weaker die out. If the theory be true of plants and the lower animals, it must be true of man also. Professor Vogt, though a follower of Mr. Darwin, does not believe that it necessarily follows that man must have sprung from one and the same origin. According to this theory—in which he did not believe—the various races of man may have sprung from different animals. He (Mr. Wallace) was of opinion that similarity in the mental characters of the different races, was far greater than their dissimilarity; that language, which can be acquired by every race, is a proof of mental unity. It is a mistake to imagine that Mr. Darwin considers climate the cause of the changes which he points out. It is doubtful whether all dogs have sprung from the same stock, but with pigeons there is no doubt that they have. In them, alterations of the skull are produced perfectly independent of changes of climate. He was of opinion that it is quite logical to believe that races have diverged from a common stock, and that they are now gradually again approaching each other. Different races are found in different

climates, because others could not live there. The type of any particular race was the cause of the selection of the locality in which it is found, and was not caused by the conditions under which the people live. The statement that man is becoming more homogeneous is quite correct. The weakest always goes to the wall, and as the most powerful races increase they will drive the weaker off the face of the earth. Why else do the New Zealanders die?

Mr. REDDIE: This argument will not apply to the case of Europeans going to India and to Africa, though it may in the case of New Zealand and elsewhere.

Mr. WALLACE: Those races which are best adapted for residence in a country will drive out the natives if they are weaker and less able to resist.

Dr. HUNT, in reply, said that he should be sorry to think that the audience did not understand the object of his paper better than some of the speakers appeared to do. He simply spoke of the application which had been made of a certain theory, and did not enter into the question of monogeny or polygeny. He wished people to keep their minds open on the question of the unity or diversity of origin of man; he believed it had been discussed much before the proper time. He strongly objected to the notion that in the present state of knowledge Darwin's theory must be accepted. At present we know absolutely nothing, and are not in a position to offer an opinion as to its correctness or otherwise. We have nothing to do with the question, "which is the most philosophical assumption?" Why should we give preference to one ape rather than to another? The Chairman had expressed an opinion that, because some races are dying out, therefore there must be a coming unity. But if Mr. Darwin's theory were true, there would be a constant tendency to diversity, and fresh races would constantly spring up. Though the standard of the new races might be higher and the physical differences less marked, yet intellectually they would become wider apart. He wished particularly to impress on the meeting, that in the present state of our knowledge, we are not in a position to offer any opinion as to the origin of man or his position in nature.

Dr. JOHN BEDDOE, *On the Stature and Bulk of the Irish, and on the Degeneration of Race.*

Mr. C. C. BLAKE, *On Skulls from Round Barrows in Dorsetshire.*—Mr. C. C. Blake remarked that they were obtained by Dr. Hunt, the President of the Anthropological Society, from some barrows near Blandford. Dr. Thurnam, in a dissertation on the two principal forms of English and Gaulish skulls, gave a table containing the measurement of twenty-five skulls from the English round barrows. The longest of those exhibited a cephalic index of .74, and the shortest .87, the average being .81; and Dr. Thurnam therefore concluded that the typical character of the skulls found in round barrows was that which presented the brachycephalic type. When the skulls taken from the Blandford barrow were carefully measured, it appeared that the rate of breadth was much smaller than the average of those measured by Dr. Thurnam. Where Dr. Thurnam's lowest breadth was .74, the

lowest of the Blandford skulls was '66; and where his highest was '87, the highest of those from Blandford was '81, the average being in each case respectively '81 and '73. If the Blandford skulls (nine in number) were added to Dr. Thurnam's table of twenty-five, the average of the whole thirty-four would be found to be '77. The distinction between an average of '81 and '77 must strike all observers, and some might consider the deduction of four per cent. as invalidating many of the general conclusions arrived at by Dr. Thurnam. If Mr. Blake were inclined to base any conclusions on his measurements, he might reverse Dr. Thurnam's "sort of axiom", and say "long barrows, long skulls; round barrows, long skulls too, and sometimes longer". A description of the skull would follow at another time, and the conclusions he would draw at present were as follow:—1st. That the state of materials at disposal precluded any generalisation as to the prevalence of a brachycephalic type of the skull in the round barrows of the south of England. 2nd. That a much larger series of skulls from the round, as well as from the long barrows, must be measured before any conclusion could be arrived at as to the *cranial modulus*.

Dr. HUNT said there had been a large number of round barrows opened in Dorsetshire, and a good many urns had been found, but anthropology was in such a state that it had not been thought worth while to take care of the skulls. He met with a gentleman who was in possession of some skulls, and prevailed upon him to part with them for the Anthropological Society. The subject of the connection of the classes of people to whom they owed the round and long barrows found all over Europe had excited great interest. He thought the theory of Dr. Thurnam, that in round barrows there were round skulls, and long skulls in long barrows, was prematurely advanced. The opinion of Dr. Barnard Davis was that a long and a round-headed people inhabited this country at the same time.

Mr. SEBASTIAN EVANS observed that Dr. Thurnam's axiom was so convenient a formula that it would be a pity to give it up until it had been clearly demonstrated to be erroneous, and this he thought had not yet been done. With one of the skulls exhibited were found some iron and Roman implements, and several of the other skulls were so similar, that there could be no reasonable doubt about their belonging to individuals of the same race. In all probability, therefore, the skulls exhibited were of a comparatively later date, well within the limits of the iron age. The round barrows and short skulls described by Dr. Thurnam, and on which he founded his hypothesis, belonged, he (Mr. Evans) believed, entirely to an earlier period, the bronze age. It was, therefore, still possible that Dr. Thurnam's theory might be true to this extent: that the long barrows were raised by a long-headed race; the earlier round barrows by a short-headed race; and the later round barrows by a third intrusive long-headed race, who might not impossibly be hereafter identified as the Belgæ mentioned by Cæsar as inhabiting the southern parts of the island.

After some remarks from Mr. Wesley, Mr. Blake briefly replied.

Mr. A. ERNST, *On the Anthropology of Caracas*. It was here re-

marked that it was difficult to give information concerning the number of inhabitants belonging to the mixed races, as all were "Ciudadanos", and the law did not recognise a difference of race. A difference, however, existed in society, and it would perhaps never completely disappear. There were all shades of colour, from the deepest black to the almost perfect white, so that colour was not a good criterion. There was more security in the hair, the tint of the nails, and the colour of the male sexual organs. The son of a white father and a Negro mother was called "mulatto", while the son of a similar father and an Indian mother was termed "zambo". When a man of mixed blood married a woman darker than himself, and his children thereby became further removed from the white tint, it was said to be *un salto atras* (a leap backwards). The mixed races were virtually the ruling part of the population, and no doubt would be for a long time.

Dr. SHORTT, *On the Habits and Manners of the Marwar Tribes of India*. The dress and mode of piercing the ear-lobes among the women, and the ceremony of installing the present ranees in the zemindary, were particularly dwelt upon.

Dr. E. B. BOGG, *On the Manners and Customs of the Fishing Indians of Vancouver's Island, chiefly as typified by the Sougish Tribe*.—The writer observed that the Sougish tribe, at once the smallest and most degraded, dwelt in and around Victoria, the capital of the island. Amongst other things, the language of the people was adverted to, the doctor describing it as a collection of K's and Q's, gurgled in the throat in a manner that would lead uninitiated persons to suppose that the speaker was about to vomit. Yet to that strange language they could give so peculiar an utterance, as to be heard for several miles through the silent forests. Her Majesty's ship *Devastation* went to the west coast to seize some Indians who had murdered an agent, and it was subsequently ascertained that the exact hour of its departure from Victoria and its destination were known to all the west coast tribes within four hours of the weighing of the anchor. The intelligence must have been communicated through the forest, from one tribe to another, as the distance was much too great for any other mode to have been adopted.

Dr. HUNT approved of the manner in which the paper had been written; the writer appeared to have observed closely and written down carefully what he had seen. There were one or two points about it which seemed so extraordinary, however, that he had great difficulty in believing them: such as the statement that the medicine man, on initiation, ate a dog alive. He should have been happy to hear how this had been accomplished.

Mr. GROOM NAPIER called attention to the statement that the Indians are able to make themselves heard at a distance of seven miles; it is usually believed that the human voice is not audible at a greater distance than one mile.

Rev. W. T. MARSH alluded to the statement that the swathing of their limbs increased their latheness, a result which could not have been expected. He should be glad to hear whether any gentleman

present could speak from his own observation, whether such a result was met with in other tribes.

Mr. TYLOR considered the paper a valuable communication, and the information which it contained of much importance. The statements which it contained coincide very much with what others have said, though in some points the writer may have been misinformed. The loose-headed spear spoken of is found also in other parts of the world: on the eastern coast of Africa, in the Eastern Archipelago, and on the coasts of the whole of North America. The flotation which in other instances is only the loose shaft of the spear, in the present case is much increased by the addition of a seal-skin blown out. The fish-hook mentioned was an extraordinary contrivance, quite new to the description of savage fish-hooks. The ceremony of scalping represented in play among these Indians, is common in reality on the opposite side of the Rocky Mountains. It is curious if it is a relic of what was formerly done in earnest. The writer mentions a game of odds and evens; it is curious to observe how common games of this sort are all over the world, in some tribes they reach a high degree of complexity. The statement that a dog was eaten alive is open to question; but there can be no doubt that when the medicine man reappears he makes a rush at the warrior nearest to him and endeavours to bite a piece out of his arm. With regard to the statement that the voice is heard at a distance of seven miles, it sounds at first as if there had been some misapprehension. The language is the most unlikely of all in the world to be heard at a great distance. Experience shows that, at a distance, the consonants of a word are lost before the vowels, and that ultimately only the vowels are heard. The language of these Indians is made up almost entirely of consonants.

Dr. HUNT referred to an instance mentioned by Captain Parry, where the human voice was heard at a distance of seven miles under the peculiar atmospheric conditions of the Arctic Circle, and thought that similar conditions may exist in the case mentioned by Dr. Bopp.

Mr. DAVID MORRIS thought that the human voice might, after practice, be made audible at a great distance, and mentioned as an instance of the effect of practice in overcoming obstacles in making the voice audible, that in cotton mills, where the machinery entirely drowns the voice of inexperienced persons, he was able to make himself heard, by modifying his voice, at a distance of many yards. He was acquainted with a gentleman who was ordinarily almost stone deaf, who, when travelling by railway through a tunnel, could hear the lowest whisper. He had no difficulty in believing the writer's statement.

Mr. TYLOR said that in India some of the Pariah tribes, through force of circumstances, have acquired the power of making themselves heard at great distances. He could quite credit the correctness of the statement made by the author.

Dr. GRIERSON gave an account *On Certain Celts from Dumfriesshire*. One class consisted of perforated stones found in the locality, and many are hung up in byres and stables as a charm against witchcraft.

Another class was composed of stones not to be found in the district, and in some instances he believed not in the British Isles. The character and workmanship of these were very superior to the former. He concluded, therefore, that the two classes belonged to different races and periods.

Dr. HUNT doubted whether the celts differed from those found throughout Scandinavia. Danish investigators fixed the limits of the stone age as at least 5,000 years ago.

Mr. BLAKE said there evidently existed in early times modes of diffusion of stone from one place to another, for in Belgium 30,000 flint flakes and nuclei were found at the Trou de Chaleux, which must have been brought thirty miles, and pieces of felspar which must have been carried 180 miles.

The CHAIRMAN (Mr. Wallace) thought it was not surprising to find stones not indigenous to the locality, for savage tribes at the present day thought nothing of travelling several hundred miles to procure articles which they wanted.

Prof. LEITNER contributed *Some Papers from Lahore*.

Dr. E. P. HOUGHTON *On the Dyaks of Borneo*.

Mr. WALLACE said that although there was nothing new in the paper, there were many points worthy of discussion. As the author had had such a good opportunity of observing the fluctuation in the population, it was a pity he had not made more use of it. His own observation led him to believe that it was nearly stationary. There is such an abundance of food that little exertion is required to obtain as much as is required for sustenance; the population being small and almost stationary, there is little or no pressure on the means of subsistence, and so the chief stimulus to exertion is wanting. He believed that the small number of children born is probably owing to the hard work which the women have to go through, as in other savage tribes. Should the men be induced to relieve the women of their toil, and thus render the women more able to bear children, the best results may be expected.

Dr. HUNT knew that the author was most willing to do everything he could in the cause of science, particularly of anthropology; and he was sure that the matter had only to be properly brought before him for his attention to be given to it. With regard to the smallness of the families, it was the same with all tribes low in the scale of civilisation. In Europe we have an instance in the case of the Lapps. The average increase of population among the Norwegians is wonderfully small. The author had said that the Dyaks have a very vague idea of a future life; it has often been stated that all nations, however low they may be, have an idea of that state, but this has been well shewn to be incorrect by the Rev. Mr. Farrar.

Dr. GRIERSON cautioned the audience not to follow the last speaker.

Sir J. LUBBOCK fully agreed with Dr. Hunt. Even missionaries, who might not be expected to say so, stated that they were acquainted with tribes having no idea of a future state. With regard to the social condition of the Dyaks, he thought that we are too apt to fall into the error of the Greeks and Romans in calling other races barba-

rians because they differed from us. The truth is they have been forced into a different stage of civilisation, and many of them, the South Sea Islanders for instance, have made the most of their opportunities.

Mr. TYLOR said the paper had led to the discussion of a very interesting question which might be divided into two parts: 1. The belief in a future state; 2. The belief in the existence of a Superior Being. The usual belief among savage tribes is, that when a man dies his soul goes to another place. This is shewn in the custom of burying things with the dead, that their souls may go to be with that of the departed. It has frequently been found that races who were supposed not to believe in a future state or the existence of a Superior Being were possessed of an abstruse mythology. He believed that the way to state the case properly is to say, "formerly it was believed that many races had no knowledge of a future state or the existence of a Superior Being, but that the number of such has been reduced."

Mr. CARTER BLAKE thought that in discussing the subject, it was advisable to have a clear idea of what was meant when the term "religion" was used.

Dr. R. S. CHARNOCK said that we need not go to the ends of the earth to find people who do not believe in a future state. He knew many in England, "savages" he supposed, who did not.

Mr. WALLACE. The question of population resolves itself into two parts: 1. What is the number of children born? 2. What is the number who grow up? He thought it important to make this distinction, as he believed the rate of mortality among children was very high. Over-work has probably a great deal to do with the small number of children born; it has been found that Malay women, who are better treated, have a larger number of children.

In discussing the question of religion, care should be taken against considering the belief of the whole tribe to be the same as that of a single individual member of it. His own opinion was that tribes do exist who have no idea of anything beyond the grave. Sir S. Baker related his conversation with a Latuka chief, who argued that when a man dies there is an end of him. He, Mr. Wallace, was of opinion that all races believe in the existence of unseen things.

Dr. PAUL BROCA *On the Anthropology of Lower Brittany*.—Contended that there were two races in France, one tall, the other short, the line of separation corresponding to that which in the time of Cæsar divided Celtic from Belgic Gaul. The inhabitants of the cantons of the latter were short in stature, and of a type corresponding to the Cornish.

Mr. SEBASTIAN EVANS agreed with M. Broca in believing that the sea air had nothing to do with modifying the physique of dwellers on the coast, but thought that hardly sufficient importance had been assigned to the influence of a military sea-faring life on the stature of a people. At all events, if it could not be conclusively proved that the two circumstances were related, it was remarkable that the Bas-Bretons were taller than their neighbours though closely allied in

kindred, and that the Bas-Bretons were descendants of the Veneti, who had lived by piracy and buccaneering for centuries before the time of Cæsar. Going northward again the same phenomenon recurred. As soon as the traveller came to those parts of France to which the Norman invasion had penetrated, a distinct increase in stature was perceptible. The Normans when they marched under Rollo to occupy the fair fields of Neustria, were the biggest of limb and strongest of thew of any nation on the face of the earth. They were the lineal descendants of the Vikings—those terrible Scandinavian sea-rovers who more than any other race had made their home upon the ocean. On the deck of the Norse pirate-ship, the strong arm, the keen eye, the stout heart, were indispensable requisites of the sailor. All the puny, rickety, cowardly individuals got killed off, and they who survived to perpetuate the race were the strongest of muscle and longest of limb. This process had been going on for a thousand years before Rollo marched southward. Nor should it be forgotten that these old rovers visited every shore of the known world, and carried off from thence the fairest and tallest of the daughters of the land to be the mothers of their children. Sea air in itself might have no influence on race characteristics, but a thousand years of piratical national life, and a constant influx of fresh blood could not fail to affect materially the physique of a people.

Professor HUXLEY protested against this application of the principle of natural selection. He had lived long on board ship, and believed that to those who had to pass their lives in a low-roofed cabin it would be an advantage to be short rather than tall. Maritime people are not always tall, as, for instance, the Basque race in Europe and the Malays in Asia, the latter of whom average only 5 ft. 3 in. in height.

Mr. EVANS explained that the Scandinavian sailors would hardly have been inconvenienced in the same way as Mr. Huxley, inasmuch as they had no cabins at all, and that the maritime nation referred to by the Professor were commercial rather than military, or if military fighting under different conditions to the Norsemen, which would account for the difference in the result.

Mr. MOGGRIDGE instanced the Dutch as being anything but tall; they are in fact short, round, and dumpy.

Mr. FLOWER: Harold of Norway was unable to ride on any horse, his legs were so very long.

Mr. WALLACE did not see that the subject under discussion afforded any evidence in favour of the doctrine of natural selection.

Rev. F. W. FARRAR, in reference to the stature of the people of Brittany, drew attention to the statement that the flower of the French nation had been slain during the wars of Napoleon. He thought that perhaps the fact that boys of eighteen were then pressed into the army, and had to go through great privations, would in some measure at least account for the short stature of modern Frenchmen.

Professor HUXLEY on *Two Extreme Forms of Human Crania*.—The crania exhibited were:—1st. The skull of an adult Tartar, from the

museum of the Royal College of Surgeons of London, the most brachycephalic he had ever seen, the breadth in comparison with the length presenting the extraordinary proportions of 977 to 1,000. This skull was orthognathic. 2nd. An instance of extreme dolichocephaly which was said to have come from New Zealand, but of this he was doubtful, as in some particulars it possessed characters of the Australian type; but for the purpose of his communication it was of no moment where it came from. It presented the extraordinary proportions of 629 of breadth to 1,000 of length. Prognathism in this skull was very decided. The roof of the first was arched and dome-like, and the contour was almost semicircular, while that of the second was compressed at the sides similar to the roof of a house. Although the difference in general contour was in these skulls so great, the cranial axis of the one was the same length as that of the other, a fact which showed that length of the cranial axis has no absolute relation to the absolute length or breadth of the skull. The angle of the sphenoid bone has been said to give the character of the face—the more bent the sphenoid bone, that is to say, the smaller the sphenoid angle, the more perpendicular is the position of the teeth; the larger the sphenoid angle the greater the obliquity of the incisors by the enlargement of the facial bones. But in these two skulls Professor Huxley was of opinion that the sphenoid angle was the same, so that this point might be eliminated from the discussion as unimportant. But the moment the outline of the one was superposed upon the other it was apparent that although these important portions of the skull were the same in both, the parts adjoining were arranged so differently as to entirely alter the general outline. The plane of the occipital foramen was much more horizontal in the New Zealand (?) skull than in the Tartar. If the plane of the occipital foramen of the former were the same as that of the latter the degree of prognathism would be much greater, were the plane of the occipital foramen of the Tartar skull the same as that of the New Zealand (?) skull the orthognathism would be so great that the brow would overhang the face. These various points, the similarity of the sphenoid angle and the difference in the plane of the occipital foramen shew the importance of making a section through crania previous to expressing an opinion on them. The next point on which these skulls throw light was the effect which synostosis of the sutures was supposed to have in altering the form of the skull. Virchow pointed out that if the sutures become closed in early life the skull does not expand in the direction at right angles to the suture. If the sutures remain open while the brain is growing, synostosis at a later period is of no consequence as it does not alter the shape of the skull. Those who have worked at the subject finding a synostosis have argued back without thinking of this. The importance of attending to the time at which synostosis took place was exemplified in one of the skulls exhibited, that of the Tartar. Complete synostosis along the sagittal suture had taken place probably at an early period of life, as the others were all open, and yet the breadth in comparison to the length was in that skull unusually great. The brow was so full as to hide the jugal arches from a vertical view,

although the face bones were of full size. While in the other skull in which no synostosis had taken place the head was unusually long, the brow narrow, and the cheek-bones, though not large, were visible from above. The points to which he particularly wished to call attention were:—I. Early synostosis may order without alteration in the shape of the cranium. II. Extreme forms of the skull may be produced without synostosis. III. A correct idea of the relative proportions of a skull cannot be obtained without first of all making a section through it.

Mr. WM. TURNER said that he had two skulls in his possession which would bear out the peculiarities of those exhibited. One of them, that of a Bohemian, was remarkably brachycephalic, though the sagittal suture was obliterated. This was all the more remarkable because it was the skull of a young person not more than twenty-one years old—an age when that suture is usually open. The other from Lincolnshire was remarkably elongated, with all the sutures open. This independent evidence confirmed the opinions put forth by Professor Huxley. The subject of synostosis and the effects resulting from it should be carefully reconsidered.

Mr. SEBASTIAN EVANS wished to know whether there were any marks of external artificial compression visible in either of the skulls exhibited.

Professor HUXLEY: No, none at all.

Mr. CARTER BLAKE said that it could not be denied that Professor Huxley had laid before them two skulls which offered peculiarities, so far as he knew himself, unexampled. The one—that which Professor Huxley had referred to as possessing an index of .62—he considered to belong to the same type of skulls as those which Dr. Barnard Davis had described for the Caroline Islands. It might certainly, on the other hand, be Australian, for the characters of the race skull of that continent were not well fixed. Certainly, it disagreed from the skulls of such typical “tectocephalic” skulls, as those figured by Ecker, and also with those of a more flattened type, which Professor Huxley had himself compared with river bed skulls. It accorded both in the character of extreme length and extreme narrowness with the skulls of the Caroline Islanders. As for the other skull, whose index was .97, Mr. Blake thought it not one of those cases which could be cited as an example of the fair normal skull, for there was a depression along the lambdoid suture which he thought was due to vertical *déprimation par derrière*; there was a distinct depression along the posterior part of the sagittal suture, which had a tendency to produce a *bilobation transverse*, similar in kind, though less in degree than that exhibited in the skulls from *Sacrificios*. Then there was also evidence of a constricting force having operated around the line of the coronal suture, which force had in part produced a tendency towards the *tête annulaire* of Foville. These abnormal causes had rendered equable expansion of the skull impossible, and the result was a tendency shown around the alispheroid sutures to enlarge in a transverse direction to the longitudinal axis of the skull. With regard to Virchow's law, Professor Huxley and Mr. Turner seemed to have two specimens which contradicted it, if applied exactly; yet hundreds

of specimens might be shown on the other side. He, however, admitted that the facts laid on the table by Professor Huxley were amongst the most interesting which had been discovered for many years.

Dr. BARNARD DAVIS said, in reference to Professor Huxley's opinion, that if synostosis of the parietals occasioned dolichocephalism in one case, it must necessarily do so in all cases, he could assure him that this was altogether a mistake; it was neither a universal, nor even the usual result. He had in his collection about thirty skulls in which the sagittal suture is ossified, and not so many as one-third of these have been elongated, or otherwise deformed. Indeed, the shortest skull in the entire collection, that of a Pokomame from Guatemala—shorter than even the Tartar exhibited—has an entire obliteration of the sagittal suture. This skull has been artificially compressed. Hence it is plain no such absolute law exists as that propounded, and other elements must enter into the condition where dolichocephalism is the result of synostosis.

Professor HUXLEY, in reply, said that he was glad to have elicited the fact that synostosis may occur early in life without producing alteration in the shape of the skull. He believed it was not possible to say at what period synostosis had taken place, when it was observed in the cranium of a full-grown person. It was, therefore, not possible to say whether peculiarities observed in a skull with any of the sutures ossified belonged to the skull itself, the synostosis being merely accidental, or whether they were the result of the closing of the sutures. Mr. Blake said that, in his opinion, the skull said to be that of a New Zealander came in reality from New Caledonia. This opened a question of much importance. He had observed that the Australian *facies* extended over a great part of Polynesia. He considered it impossible to distinguish between an Australian and a New Caledonian skull. Before sitting down, he wished to call particular attention to a new publication being brought out in Germany, entitled *Archives of Anthropology*.

On the proposition of Dr. Hunt, the thanks of the meeting were cordially voted to Professor Huxley, for his important communication.

Dr. JAMES HUNT communicated the result of observations made on cases of *modern Norwegians*. The cranial measurements of the majority of the cases indicated that the form of the skull in the Norwegians is much rounder than had hitherto been supposed. The average height of seventy-eight cases of males was 5 feet 8 inches. The hair in the majority of cases was light brown, and the eyes light blue. The author contended that there was no such thing as a Norse race, the races inhabiting that country differing quite as much, if not more, than any inhabiting this country. The author gave some details of his examination of Swedes and Lapps, and concluded by urging the desirability of not confusing the inhabitants of Norway and Sweden.

Mr. W. BOLLAERT *On Ancient Peruvian Hieroglyphics, including the recently discovered Figured Writing*.

Mr. WALLACE said, that throughout the Valley of the Amazon, wherever granite was found in such a position that it could be marked,

rude sketches of canoes, animals, implements and utensils were cut in it. It is remarkable that they should be cut in granite deep enough to be permanent. It would indeed be odd if all that trouble had been taken if they were not intended as a record.

J. PLANT, Esq., F.G.S., *On Evidences of Pre-historic Man, from Pooles Cavern.*

Dr. FAIRBANK said that the remains referred to in this paper resembled those found in other caverns in the same locality, and are supposed to belong to the late Roman and early Anglo-Saxon periods. A systematic exploration of this cavern will, he hoped, be one of the first undertakings of the recently founded Manchester Branch of the Anthropological Society of London; the result of which will be made known either through the Society's Transactions or at the next meeting of the Association.

Consul T. J. HUTCHINSON, *On the Indians of the Paraná.*

JOHN COLLINSON, Esq., *On the Indians of the Mosquito Territory.*

A. H. W. INGRAM, Esq., *On a Slate Armlet.*

J. W. FLOWER, Esq., *On a Kjökkenmödding in the Island of Herm.*

Sir EDWARD BELCHER, *On the Stone Weapons and Ornaments of the Esquimaux.*

Dr. MANN, *On the Mental and Moral Characteristics of the Zulu Kaffers of Natal.*

S. PHILLIPS DAY, Esq., *On the Power of Rearing Children among Savage Tribes.*

Dr. GUSTAVE LAGNEAU, *On the Sarrazins in France.*

Professor TENNANT, *On the Traces of an Irish Lake Dwelling found by Captain L'Estrange.*

J. PRIGG, Esq., junior, *On Flint Implements from Drift of Little Ouse Valley.*

W. BOLLAERT, Esq., and Professor RAIMONDY, *On Ancient Engravings on Stone, Southern Peru.*

C. CARTER BLAKE, Esq., F.G.S., *On a Condylus Tertius.*

J. ANDERSON, Esq., *On Recent Explorations in Chambered Cairns of Caithness.*

C. S. WAKE, *On Antiquity of Man in Relation to Comparative Geology.*

Many papers were read in abstract, as there was neither time for reading them at length nor discussing them. This was especially the case the last day. The uncertainty as to the appointment of a Department rendered many authors of papers unable to send them in until the last moment. These papers will, however, be read before the Anthropological Society, and we need not therefore again revert to them. The interest of the Department was becoming greater every day, and much satisfaction was expressed on all sides at the amount of work done. After a complimentary vote of thanks to the President, moved by Sir John Lubbock and seconded by Dr. James Hunt, the Department was adjourned by Mr. Wallace to Dundee in September 1867.

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NOVEMBER 14TH, 1865.

JAMES HUNT, Esq., Ph.D., F.S.A., F.R.S.L., PRESIDENT, IN THE CHAIR.

The proceedings of the last meeting of the previous session were read and confirmed.

The following gentlemen have been elected Fellows of the Society since the vacation :—A. Mercer Adam, M.D., Boston, Lincolnshire ; William Aspull, Esq., 5, Shrewsbury road, Bayswater ; Captain R. Baring, 19th Hussars, 11, Berkeley square ; Henry Walter Barlow, Esq., Lower Clapton, London, N.E. ; Henry Thorowgood Barnes, Esq., 12, Middleton road, Camden road, N. ; H. Beigel, Esq., M.D., 3, Finsbury square ; John Bilderbeck, M.R.C.S., and L.M. England, Civil Surgeon of Cuddalore, Madras ; Charles Booth, Esq., 16, Notting hill square ; W. Brookes, Esq., Bank buildings, Newcastle, New South Wales ; Edwin Brown, Esq., F.G.S., Hon. Sec. Midland Natural History Society, Burton-on-Trent ; Captain John Harcourt Brown, R.N., 31, Bloomsbury street ; Henry Burden, Esq., A.M., M.D., M.R.C.S., Demonstrator of Anatomy, Queen's College, Belfast, 10, Alfred street, Belfast ; Robert Cæsar Childers, Esq., Cantley, Yorkshire ; Samuel Chinnery, Esq., 146, The Grove, Camberwell ; William Nathan Chipperfield, M.R.C.S., and L.A.C., Professor of Anatomy and Physiology in the Madras Medical College, Madras ; William Henry Clans, Esq., Surgeon, Bonny, West Coast Africa ; Hyde Clarke, Esq., LL.D., member of the German Oriental Society, of the Academy of Anatolia, of the Royal Society of Northern Antiquaries, of the Institution of Engineers of Vienna, Smyrna (Villa Falkenberg, Boujah-a-Azazieh, Turkey) ; F. L. Cotton, Esq., 4, King Edward's road, Hackney ; Jonathan William Elmes, Commissariat Staff, Lagos, West Africa ; John Hawley Glover, Lieut.-Governor of Lagos, Lagos ; Arthur Gordon Gordon, Esq., Gaboon, W.A., and 13, Westbourne place, Victoria park, Clifton, Bristol ; John Grattan, Esq., Mervue, Belfast ; Upfield Green, Esq., 3, Clarendon villas, South Hackney ; Rev. William Greenwell, M.A., Canon of Durham, Durham ; Frederick Griffin, Esq., 1, Palace gardens, W. ; Charles Harding, Esq., F.R.G.S., F.S.S., Colbert villa, Springfield road, St. John's Wood ; William Harding, Esq., M.R.C.S., 4, Percy street, Bedford square ; J. A. W. Harper, Esq., 23, Grosvenor road, Pimlico ; Alfred G. Henriques, Esq., of the Middle Temple,

barrister-at-law, 2, Stone buildings, Lincoln's inn fields; Thomas Humble, Esq., M.D., M.R.C.S., 4, Eldon square, Newcastle-on-Tyne; Walter Hyslop, Esq., 29, Tredegar square, Bow road; Major George James Ivey, 4th West India Regiment, care of Messrs. Cox and Co., Craig's court, Charing cross, London; Henry Willan Jackson, Esq., M.R.C.S. England, 1, Cumberland terrace, Regent's park, N.W.; Henry Edward Jessop, Esq., M.R.C.S., Clarence parade, Cheltenham; M. W. Keene, Esq., Government Geologist and Inspector of Coal fields, Bank buildings, Newcastle, New South Wales; Major General William Lang, of H.M.'s Bombay Army, Langhouse, Inverkip, near Greenock, N.B.; John Lee, LL.D., F.R.S., V.P.R.A.S., F.L.S., F.G.S., F.S.A., F.R.G.S., Hartwell house, near Aylesbury; John Mackenzie, Esq., M.D., 62nd Regiment, Pembroke; Andrew McCallum, Esq., 4, Bedford gardens, Kensington; William McCoskey, Esq., Lagos, West Africa, and care of Burnett and Kidd, 4, Cook street, Liverpool; Arthur Mitchell, Esq., M.D., Laverock Bank, Trinity, Edinburgh; Thomas B. Moriarty, A.B., M.D., Staff Assistant Surgeon, 17, Whitehall place, London; Thomas F. Overman, Esq., Browning's lodge, near Tunbridge Wells; B. H. Paul, Esq., Ph.D., F.C.S., 8, Gray's inn square; George Peacock, Esq., M.D., M.A., Naval and Military Club, SW.; Henry Rudall, Esq., 164, The Grove, Camberwell; William Bridges Rowe, Esq., B.A., F.I.A., 77, King street, Manchester; James Sandale, Esq., M.D., 6th Dragoon Guards, Brighton; F. G. Seaman, Esq., M.D., F.R.G.S., 3, Villa road, St. Leonards; Henry Danby Seymour, Esq., M.P., 39, Upper Grosvenor street, W.; Mr. Joseph Shepherd, 29, Everton crescent, Liverpool; Dr. Frank Simpson, H.M. Medical Staff, Gold Coast; George Smith, Esq., Vandevelde house, St. Margaret's place, St. Leonards; John Stanton, Esq., student-at-law, Waterloo house, Chorley, Lancashire; D. W. Studart, Esq., H.M., Consul, Ceará; Thomas Tate, Esq., Loc. Sec. A.S.L. for Hastings, Ore, near Hastings; Thomas Tate, Esq., Surgeon on board the *Celano* (trading to New Zealand); Samuel Timmins, Esq., Elvethan lodge, Edgbaston; Herbert Taylor Upher, Commissariat Staff, Lagos, West Africa; J. R. Wevill, Esq., 14, Almorah road, Downham road, Islington; Colonel Beauchamp Walker, R.A., 97, Onslow square; E. T. Wakefield, Esq., 40, Pembridge villas, Bayswater; James Alfred Wanklyn, Esq., F.C.S., Prof. Chemistry London Institution, London Institution, Finsbury circus; S. W. D. Williams, Esq., M.D., L.R.C.P. London, General Lunatic Asylum, Wolverhampton; R. Wilson, Esq., M.D., Tinnevelly, India—care of Messrs. Smith, Elder, and Co., Cornhill, London; E. G. Squier, Esq. (Honorary), New York.

The following Local Secretaries were elected:—Joseph Anderson, Esq., Wick, Caithness; Robert Campbell, Esq., Abbeokuta and Lagos, West Africa; James F. Draper, Esq., 13, Duhamel place, Jersey; M. C. Furnell, Esq., M.D., Cochin, Southern India; M. Alexis Fedchenko, Moscow; D. Antonio de Lacerda, San Salvador de Bahia, Brazil; Alexander Michie, Esq., F.A.S.L., Shanghai; George Petrie, Esq., Cor. Mem. Soc. Antiq. Scot., Kirkwall, Orkney; George Smith, Esq., Lerwick, Zetland.

The following list of presents received during the vacation was read:

—Address. Distribution of Prizes, St. Mary's Hospital, by Prof. Owen (the Author). José de Lacerda, Portuguese African Territories (the Author). Hutchinson, Buenos Ayres and Argentine Gleanings (W. Bollaert). Harvey, De Generatione Animalium (Dr. F. Royston Fairbank). Harvey, Works of, by Willis (Ditto). Die Materialistische Weltauschauung Unzerenzeit (Prof. Hyrtl). Skull of Orang-outang, Simia Morio (J. B. Baxter, Esq.) Skull of Hova, etc. (Dr. Sampson Roch). Report British Association, 1864 (C. C. Blake). Complete set of Social Science Review (G. A. Hutchinson). Tratado de Vendages y Apositos (G. E. Roberts). Varenus, Descriptio Regni Japoniæ et Siam (Ditto). The North-west Passage, 2 parts (J. R. Brown, Esq.) A Plea for Urania (K. R. H. Mackenzie, Esq.) Transactions of the Society of Antiquaries of Scotland, complete set (the Society). Bulletins de l'Academie Royale de Belgique (the Academy). Journal of Asiatic Society of Bengal (the Society). Canadian Journal (the Editors). J. Van der Hoeven, Beschrijving Van Schedels Van In Boorlingen der Carolina Eilanden (the Author). Report of Hull Literary and Philosophical Society (the Society). Bulletin de l'Institut National Genevois (The Institute). Giornale di Scienze Naturale ed Economiche de Palermo (the Institution of Palermo). Results of Meteorological Observations (the Smithsonian Institution). Smithsonian Report (Ditto). Vocabulary of the Clallam and Lummi Language; of the Mohawk; of the Chinook; of the Mikmaque; of the Mutran and Gramnon; of the Yokama; of the Névome—Pima; of the San Antonio Mission (Ditto). Rokitansky's Pathological Anatomy, 4 vols., 8vo. (Dr. Fairbank). Hecker: The Black Death in the Fourteenth Century (Ditto). New Sydenham Society: Selected Monographs (Ditto). Erasmus Wilson, Anatomist's *Vade-Mecum* (Ditto). On Synostotic Crania among Aboriginal Races of Man (Dr. B. Davis). Mémoires de la Société Impériale d'Emulation d'Abbeville (M. Boucher de Perthes). De la Femme dans l'Etat Social (Ditto). Antiquités Celtiques et Antediluvienne (Ditto). L'Homme Antediluvien et ses Œuvres (Ditto). Journal of the Royal United Service Institution (the Institution). Cholera: its Pathology, Diagnosis, and Treatment (Dr. W. Story). J. R. Bartlett: Personal Narrative of Explorations in Texas, etc. (Ditto). Leben u. Schriften des K. E. Von Baer (the Author). Van der Horn and van der Bos. De Mensch, 2 vols. (Prof. Van der Hoeven). Ethnological Journal, Nos. i-v. (L. Burke, Esq.) Journal of Asiatic Society of Bengal (The Society). Jubilee of Dr. Von Baer (the Author). Oberhessischen Gesellschaft, für Natur und Heilkunde (The Society). British Medical Journal, 1861-63 (Dr. Ryan Tenison). Music amongst the most ancient nations (Carl Engel, Esq.) Portrait of a female Zulu Kaffir (K. R. H. Mackenzie, Esq.) Flint Flakes, Cruyell, Devon; and work descriptive of the same (N. Whitley, Esq., Penarth, Truro). Evidence, Abolition of Slave Trade (F. Royston Fairbank). P. Phœbus, Normas Cranioscopicas (Dr. Hunt). Steenstrup, Mennekeslaegters Tidligste Optraeder in Europa (Ditto). Skulls from Pavenham (Dr. Peacock). Bell, on Nervous System (J. W. Conrad Cox, Esq.) Transactions Royal Society of Victoria, 1861-64 (The Society). Clarke, Introduction to the Fernandian tongue (K. R. H.

Mackenzie). Foot and Hand of Negro Skeleton (E. Canton, Esq.) Ethnology and Phrenology (J. W. Jackson, Esq.) Works of James I. (Ditto). Lectures on Mesmerism (Ditto). Skull of a Native of Oude—Resident of Lucknow (Capt. Owen).

On the motion of the President thanks were voted to the donors.

Mr. CARTER BLAKE read a letter received from Mr. James Bonwick of Queensland.

“St. Kilda, Melbourne, Sept. 25, 1865.

“My dear Dr. Hunt,—I know from your zeal on behalf of the aboriginal races, that you would be an advocate for the poor Queensland blacks now being slaughtered, as it were, by authority. I have, therefore, counselled my friend, Gideon Lang, Esq., to send to your kind care several copies of his pamphlet for distribution among the friends of the coloured races. His fearless exposure of the wrongs of our aborigines has created attention here. Mr. Lang is a man upon whose statement you may rely. One of our oldest colonists, he is one of the best educated amongst them. My son, now on a station five hundred miles north of Moreton Bay, gave me stories similar to those now told. Three months ago I took a trip to Queensland, and there heard much of this fearful and needless slaughter. Earnestly wishing you success in your public work, and heartily sympathising with you in your views and efforts, I am, yours truly,

“JAMES BONWICK.”

The PRESIDENT observed that the pamphlets referred to in the letter had not yet arrived, but when they were received they would be distributed among the Fellows of the Society. He was glad to perceive that the Fellows of the Anthropological Society of London are recognised in Australia as real friends of the aboriginal races.

Report on the Anthropological Papers read at the Birmingham Meeting of the British Association for the Advancement of Science, September 1865. By C. CARTER BLAKE, Esq., F.G.S., F.A.S.L.

FOR the third time, it is my official duty to report to the Society the results of the efforts which were made at Birmingham, to secure the recognition of Anthropological Science before the British Association.

In conformity with my orders, I proceeded to Birmingham early on Friday, September 1st, and placed myself in communication with those Fellows of the Anthropological Society who resided at Birmingham. It is, however, necessary in the first place to explain the steps which were taken to obtain apartments for an Anthropological Congress, in case the authorities of the British Association declined to grant a separate section for Anthropology; and in the second place, to give the reasons why the plan of holding a separate congress was not adopted.

The following letter was addressed to the authorities at Queen's College, Birmingham, on the 16th August last:—

“Anthropological Society of London, 4, St. Martin's Place,
August 16, 1865.

“Gentlemen,—I am directed by the President and Council of the above Society to ask for the use of the Lecture Rooms, Library, and

College Hall of Queen's College, Birmingham, for the use of an Anthropological Congress which it is contemplated to hold in Birmingham, at the meeting of the British Association. Should the General Committee of the British Association appoint a special section, we may not require all the rooms I have mentioned, but we shall still be glad to have the use of the Lecture Room, and a place for the exhibition of a large number of rude stone implements recently discovered in Zetland, where explorations have been made for the Earl of Zetland and the Anthropological Society of London.

"I have the honour to be, Gentlemen,

"Your most obedient servant,

"C. CARTER BLAKE, Assist.-Secretary."

"To the Principal and Council of the Queen's College, Birmingham."

In reply to this application, the authorities of Queen's College unanimously resolved,—

1. "That this meeting has sincere satisfaction in placing the College Hall, Library, and Lecture Rooms at the service, free of charge, of the Anthropological Society, from Monday, Sept. the 4th, to Saturday, Sept. the 16th."

2. "That the Warden, the Dean of the Faculty, the Professors of Chemistry, of Anatomy, and of Physiology, with power to add to their number, do form a sub-committee to make the necessary arrangements for the reception of the Anthropological Congress."

It was consequently announced to the Fellows of the Anthropological Society in the circular of August 24th, that

"It has been for some time contemplated to hold an Anthropological Congress, should the proposal for a special Section not be carried. The Council are happy to state that they have already secured the free use of the Lecture Hall, Library, and College Hall of Queen's College, Birmingham, for this purpose from the Principal and Council of that College. The Council have also reason to hope that, should it be found necessary to adopt this course, they will have considerable local support from the people of Birmingham.

"We are instructed, however, to inform you that the Council have not arrived at any definite conclusion as to the holding of a Congress, but they have delegated the decision of this point to the President of the Anthropological Society, with full powers to do as may be considered best for the cause of Anthropological Science.

"Should the proposal for a special Section not be carried in the General Committee, we are requested by the President to ask for your attendance in the Library of Queen's College, Birmingham, immediately after the General Committee have come to a decision."

Having arrived at Birmingham and consulted with the other Fellows in that town, I gave orders that the apartments in Queen's College should be prepared for the congress; and I deposited therein the very large collection of stone implements and diagrams which relate to the recent investigations undertaken by the Society in Zetland. Copies of the Society's publications were presented to the Free Library at Birmingham. The delegates representing the Anthropological Society of London were—J. Frederick Collingwood, Esq., F.R.S.L., F.G.S.; H. J.

C. Beavan, Esq., F.R.G.S., Hon. Sec. Anthropological Society, London ; William Travers, Esq., F.R.C.S.

On Wednesday, the 6th instant, at the meeting of the General Committee, the motion which stood in my name, "That a separate Section be formed, to be entitled Section H, and to be devoted to Anthropology," was formally moved by Dr. Hunt, our President. It was seconded by Rear-Admiral Sir Edward Belcher ; and a long discussion arose thereon, to which I need only advert by saying that a report of the speeches will be found in the last number of the *Anthropological Review*.

To this proposition an amendment was moved by Dr. Perceval Wright, seconded by Mr. A. R. Wallace, in favour of the redistribution of the science of man amongst the existing Sections. Dr. Wright's amendment was to the effect "That Subsection D be henceforth devoted to human physiology and ethnology."

Another counter-amendment was then proposed by Dr. Lee (of Hartwell), and seconded by myself, "That Subsection D be devoted to human physiology, ethnology, and anthropology."

After a very disorderly discussion, and much confusion, both these amendments were put to the vote, and rejected. The original motion proposed by Dr. Hunt was also rejected on a division, the numbers apparently being about fifty votes in favour, and seventy against.

A motion was then proposed by Professor Phillips, seconded by Mr. Francis Galton, which ran as follows :—

"That in future, all proposals for establishing new Sections, altering the titles of existing ones, or making any other change in the constitutional forms and fundamental rules of the Association be referred to the Recommendation Committee for a report."

This resolution was carried almost unanimously.

According to notice, the Fellows of the Anthropological Society, after this adverse decision of the General Meeting, held a Meeting of Congress the same afternoon in the apartments of Queen's College ; George Dawson, Esq., M.A., in the chair. The feeling of this meeting was shown unanimously in the words of the Chairman, "That the scene of which all the members of the congress had been recently witnesses clearly showed that the petty jealousies which prevailed in the British Association General Committee were too great to permit any present practical progress for Anthropological Science." Dr. Hunt having briefly recapitulated the motions which had been submitted to the General Committee, and the results which had attended them, it was resolved that a deputation wait upon the Sectional Committee of Section E, with a view to ascertain what papers on the subject of Anthropology would be acceptable to that Section.

This deputation, consisting of Messrs. Reddie, Pike, Brady, and myself, accordingly attended the Sectional Committee Meeting of Section E, and Sir Henry Rawlinson, who was in the chair, having referred the matter to Mr. John Crawford, that gentleman marked a list of the papers submitted by the Anthropological Society, and expressed on the part of the Committee of Section E their readiness to admit the papers so marked to be read before the meeting of Section E.

It being felt by the Congress that the small number of papers marked (only eight out of forty-three) rendered the chance of adequate recognition of Anthropology in Section E very small; a second deputation, consisting of Messrs. Travers, Pike, and myself, was sent to Section D. This Section was not then sitting, but the Secretary (Dr. Perceval Wright) marked on the list those papers which he thought would be eligible for Section D, and he also suggested that your reporter should wait on the Committee at its next formal sitting, to elicit the expression of their opinion. The next day I attended this Committee Meeting of Section D. A strong desire was expressed by some of its members, that the following Monday, Tuesday, and Wednesday, should be devoted to reading the papers of the Anthropological Society, and that as Section D (Zoology and Botany) had but few papers of its own to read, its members would be very glad to receive the Anthropological Society's list of papers as a whole. A motion was then proposed to the effect that the list of marked papers submitted by the Anthropological Society be received "as a whole," subject to the understanding that any individual paper unsuitable to Section D might be rejected. A discussion arose on this motion before the Committee of Section D, when eventually it was withdrawn, and that Section in answer to the formal application of the delegates of the Anthropological Congress, declined to place any formal resolution on their notice-book.

I now give a list of the papers submitted, indicating the eight whose titles were accepted by Section E, and the twenty whose titles were accepted by Section D.

The following was the list of Anthropological papers to be submitted to the Anthropological Section H at the Meeting of the British Association at Birmingham:—

Papers marked * agreed to be accepted by Section D; papers marked † agreed to be accepted by Section E; papers marked ‡ read before the Association.

† Dr. James Hunt, F.S.A., Pres.A.S.L. Report of recent investigations in the Mainland and Islands of Unst and Brassay, Zetland. (Undertaken for the Earl of Zetland, K.T., and the Anthropological Society of London.)

† Ralph Tate, Esq., F.G.S., F.A.S.L. Report on Diggings in the Islands of Unst and Yell. (Made on behalf of the Earl of Zetland, K.T., and the Anthropological Society of London.)

George Petrie, Esq., Loc. Sec. A.S.L., Corr. Mem. Soc. Antiq. Scot. On the Prehistoric Antiquities of Orkney.

Joseph Anderson, Esq., Loc. Sec. A.S.L., and Robert S. Shearer, Esq. Report on the Ancient Remains of Caithness.

Dr. James Hunt, F.S.A., and George Petrie, Esq. Account of a Discovery of some Prehistoric Dwellings at Skail, Orkney.

Dr. James Hunt, F.S.A., F.R.S.L., Pres.A.S.L. On the Present State of the Ruins of Carnac, in Brittany. (Illustrated by original Drawings.)

Prof. Stephens, of Copenhagen, Principal Barclay, of Glasgow, Dr. Edward Charlton, of Newcastle-on-Tyne, Dr. Pruner Bey, of Paris, and Dr. George Moore, of Hastings. On the Interpretation of some Inscriptions on Stones found in Shetland.

Hodder M. Westropp, Esq., F.A.S.L. On Analogous Forms of Flint Implements.

H. Prigg, Esq., Jun., F.A.S.L. On the Occurrence of Flint Implements in the Gravel of the Little Ouse at the Red Hill, Norfolk.

* Colonel Beauchamp Walker, F.A.S.L., and Lieut. Ardagh, R.E. On the Discovery of a Kjökkenmödding at Newhaven; with Notes on the Animal Remains, by Prof. R. Owen, F.R.S., Hon. F.A.S.L., and C. Carter Blake, Esq., F.G.S., F.A.S.L.

* George E. Roberts, Esq., F.G.S., F.A.S.L. On the Discovery of Bones of Bear, Megaceros, and other Animals, cut and sawn by Flint Implements, in a Gravel Deposit at Richmond, Yorkshire.

George E. Roberts, Esq., F.G.S., F.A.S.L. On the Contents of some Ancient Kists.

Dr. Berthold Seemann, V.P.A.S.L. On the resemblance between Inscribed Stones in Veraguas, Central America, and those described by Mr. George Tate, from Northumberland.

Joseph Anderson, Esq., Loc. Sec.A.S.L. On the "Picts House" and Remains from Old Stirkoke, Caithness.

Dr. James Hunt, F.S.A., Pres.A.S.L. Observations on the Influences of Peat in Destroying the Human Body, as shown by the Discovery of Human Remains buried in Peat in the Shetland Islands.

Dr. James Hunt, F.S.A., F.A.S.L. On the Discovery of some Rude Flint Implements in Sussex.

* † J. Meyer Harris, Esq., F.A.S.L. On the Gallinas, a Tribe of Sierra Leone.

* † H. J. C. Beavan, Esq., F.R.G.S., Hon. Sec.A.S.L. Notes on the people inhabiting Spain.

Hyde Clarke, Esq., LL.D., Loc. Sec.A.S.L. On Moravian Wallachia.

* Hyde Clarke, Esq., LL.D., Loc. Sec.A.S.L. Observations on the Materials for Anthropology at Smyrna.

* John Beddoe, Esq., M.D., M.A., F.A.S.L. On the Evidence of Phenomena in the West of England to the Permanence of Anthropological Types.

* John Beddoe, Esq., M.D., F.A.S.L. On the Head Forms of the West of England.

Luke O. Pike, Esq., M.A., F.A.S.L. On the Psychical Characteristics of the English People.

† * † Dr. R. S. Charnock, F.S.A., F.R.G.S., Treas.A.S.L. On Cannibalism in Europe.

* W. Bollaert, Esq., Hon. Sec.A.S.L. Introduction to the Anthropology of America.

W. Bollaert, Esq., Hon. Sec.A.S.L. On the Maya Alphabet.

* † Capt. R. F. Burton, V.P.A.S.L. Notes on the Anthropology of North-Eastern Brazil.

Dr. Houghton. On Nature and Phenomena of Life, Health and Disease in Man.

* A. Higgins, Esq., Hon. For. Sec.A.S.L. On the Orthographic Delineation of the Skull.

* W. H. Wesley, Esq., F.A.S.L. On the Iconography of the Skull.

Dr. Paul Broca, Secrétaire Général à la Société d'Anthropologie de

Paris. On a new Goniometer, for the Measurement of the Facial Triangle. [Referred by Section E to the Mathematical Section.]

† * † C. Carter Blake, Esq., F.G.S., F.A.S.L. On Certain Supposed Simious Skulls, Ancient and Modern, with Reference to a Skull from Louth in Ireland.

* H. G. Atkinson, Esq., F.G.S., F.A.S.L. On Two Australian Skulls.

* H. G. Atkinson, Esq., F.G.S., F.A.S.L. On the Idiotic Family of Downham, Norfolk.

* Dr. John Shortt, Loc. Sec.A.S.L. Observations on a Living Microcephale.

G. W. Marshall, Esq., LL.M., F.A.S.L. On Genealogy in its Relation with Anthropology.

K. R. H. Mackenzie, Esq., F.S.A., F.A.S.L. On Monogeny and Polygeny. [Objected to by Committee of Section D, on the ground of its probable immorality.]

Rev. Dunbar I. Heath, M.A., F.R.S.L., F.A.S.L. On the Anthropoid Origin of the European Races, *versus* the Theory of Migration from the East.

† * Dr. R. S. Charnock, F.S.A., F.R.G.S., F.A.S.L. On the Origin of the Gipsies.

* † Dr. Arthur Mitchell, A.M., F.A.S.L., Deputy Commissioner of Lunacy for Scotland. On the Influence of Sex upon the Offspring of Blood Relationship in Marriage.

† * D. Mackintosh, Esq., F.G.S. On the Comparative Anthropology of England and Wales. [This paper was objected to at first by the Committee of Section E, but afterwards read.]

K. R. H. Mackenzie, Esq., F.S.A., F.A.S.L. On the Views entertained by Parties towards Anthropology.

Examining this list, the rejection of some and the acceptance of other papers often savours of the ludicrous. For the first time in the history of science do I learn that a paper on the Gallinas (not the turkeys, but the negros) belongs to the domain of zoology or botany. And the same remarks applies to the papers, "Notes on the People inhabiting Spain," "On Cannibalism in Europe," and "On the Origin of the Gypsies." These papers were declared to be eligible for reading before Section D. A paper "On Monogeny and Polygeny" was strongly objected to, without having been seen, as it would probably be immoral, or else would evolve religious discussion. The paper "On the Influence of Sex upon the Offspring of Blood Relationship in Marriage," was suspected to be one of a class unfit for a general audience consisting partly of ladies; yet it was accepted by both sections. On the officials of both sections being told that another paper, "Notes on the Anthropology of North-Eastern Brazil," comprised facts which were rather delicate and adapted for an anatomical, rather than a mixed audience, great desire was shown that the paper should be read in either section. It was, however, the duty of your delegates not to read these papers, whilst many other equally valuable, and more generally interesting contributions, remained unrecognised. The papers by Dr. Hunt and Mr. Tate on the Zetland explorations

were accepted as eligible, because they were illustrated with a large series of specimens of general interest; yet papers on similar explorations in Orkney and Caithness were rejected. The paper "On the Ruins of Carnac" was decided to be ineligible for Section E, partly because it was considered to be "archæological" (whatever that may mean), and partly because a doubt was expressed by members of Committee E whether Carnac was in Brittany, or Egypt, or both. Three papers on flint instruments were voted to be "geological," and advised to be sent to Section C, where they were not sent. The other papers On Historical Anthropology met with the same fate, with the exception of two, which Section D agreed to take, but which were not submitted to them. A strong expression was evoked on the part of the officials of Section E, that papers relating to skulls or any of the physical characters of man, should not be read, as the exhibition of skulls on the table of the section would not be suitable for a mixed audience, and few persons "knew anything about skulls" in Section E. For this reason, papers "On the Orthographic Delineation," and "On the Iconography of the Skull" were rejected by Section E, although accepted by Section D. Neither section, however, would accept a paper written by that illustrious anthropologist, Dr. Paul Broca, in which the description of his new goniometer was first brought before public English notice. None of the officials of Sections D or E knew what a "cranial goniometer" was; and at last it was despairingly suggested that as the paper was mathematical, that the mathematical or mechanical sections would form the appropriate vehicles wherein to announce the latest plan of measurement of the skull.

Four papers out of the forty-three brought up by the delegates of the Anthropological Society were read. My own paper "On Simious Skulls" was read in Section E, in conformity with the wishes of the committee of that section, and when read, elicited the singular criticism from the distinguished President, "that the paper, treating as it did of anatomical subjects, was so ethnographical (!!!) that it ought to have been read before sub-section D" (Physiology).

Mr. D. Mackintosh's paper "On the Comparative Anthropology of England and Wales" was read at the author's desire, but failed to elicit any discussion.

Dr. R. S. Charnock's paper "On the Origin of the Gypsies," contained a reply to certain statements promulgated in Section E last year by Mr. Crawford, and was accordingly read.

Dr. R. S. Charnock's paper "On Cannibalism in Europe" was read, as a paper on the same subject was read by Mr. John Crawford. The discussion on the paper is chiefly remarkable for the singular display of parliamentary ethics which it evoked; Mr. John Crawford, the author of the first paper on cannibalism, being in the chair of Section E when his own paper was being read, claiming successfully the right of reply from the chair on his paper, and denying the right of reply on the part of Dr. Charnock to the gentleman who had read his paper.

The Rev. Dunbar Heath's paper "On the Anthropoid Origin of the European Races," which was a paper which undoubtedly would have

evoked some discussion, was placed on the list last in order, and was too late to be read.

All the other papers brought up by the Anthropological Society's delegates will be laid before the Society, many, it is to be hoped, within the present session.

I shall not, as on previous occasions, offer an analytical table of all the papers read in Section E, as the depreciated tone of these papers at the Birmingham meeting, compared with those of Newcastle and Bath, must have struck every one. This remark is not merely applicable to the ethnological papers read. With scarcely an exception, they had all previously been read in London; and the geographical papers read, with the exception of a paper on "The Ascent of the Purús," and another on "The Zambesi Falls," also shared in this tendency to forget the true aims of science. The popular interest, which is occasionally spasmodically evoked by the appearance of some distinguished traveller, falls off when the papers, however intrinsically good, have no readers of notoriety with the general public. The section was very empty throughout the meeting.

To turn from the proceedings at the sectional meetings of the Association to those of the sectional committee, I have to report that frequent objections were made on the part of the advocates of anthropological science, to the practice of reading papers at the British Association which had already been read in London.

On Saturday, September 9, Dr. Hunt brought forward, and I seconded a motion, "That anthropology should either be recognised in Section E; or that a special section should be appointed for anthropology and ethnology." Mr. Crawford was then in the chair of the Committee of Section E, and refused to put this motion to the vote. It was consequently set aside by the irresponsible *veto* of the Chairman.

On Monday, September 11, the same motion was again brought forward by Dr. Hunt, and seconded by Dr. Balthazar Foster, the zealous Local Secretary of the Anthropological Society in Birmingham. Sir H. Rawlinson being then in the chair, there was no obstacle placed to the division, which, on being taken, resulted in nine votes being in favour, and eleven against the proposal.

On Tuesday, September 12, Mr. K. R. H. Mackenzie, an independent member of the Anthropological Society, proposed, and Mr. J. Fred. Collingwood seconded the motion:—"That it is highly desirable to establish a section or sub-section for the discussion of the science of man; and it is moreover urged upon the consideration of the Committee of Recommendation to take such action in the matter as will effectually prevent the limited time of the section being wasted for the future."

The words "Science of Man" were introduced into the motion in place of the word "Anthropology"; and when this motion was put to a crowded meeting of the Committee of Section E, it was carried unanimously, all the hands held up being in favour.

This motion was considered to be one which would meet the wishes of all parties. It was formally referred to the Committee of Recom-

mendations, whose report thereon, as well as on a recommendation which had been sent from Section D, I here subjoin.

"The Committee of Recommendations have received the two following recommendations from Section D:—

"'I. That the title of Section D be for the future 'Section D, Biological Science.'"

"'II. That Section D should comprehend the whole field of biological science. That the Council should cease to make special arrangements and to nominate a president for a physiological subsection D. That arrangements should continue to be made by the executive from year to year for a room adequate to receive any one sub-section which the Committee of Section D may be pleased from time to time to form. That in nominating vice-presidents to Section D, regard should be had to the possibility of a sub-section being formed for any one of the great branches of biological science, over which a vice-president might be called upon to preside.'

"The Committee have carefully considered these propositions, and beg to report, as their unanimous decision, the following recommendations to take effect next meeting.

"'That the title of Section D be changed to Biology, and that the Council be charged with making the requisite arrangements.'

"The Committee have received the following recommendations from Section E:—

"'That it is highly desirable to establish a section or sub-section for the discussion of the science of man; and it is, moreover, urged upon the consideration of the Committee of Recommendations, to take such action in the matter as will effectually prevent the limited time of this section being wasted in future.'

"The Committee have carefully considered this proposition, and recommend as their unanimous decision that no separate section or sub-section be established for the science of man.

"The Committee unanimously recommend that for the word 'sub-section' in the third paragraph of the business of sections, the word 'department' be instituted."

It will be seen by this, that the chance which anthropological science ever had for recognition by the British Association has been considerably lessened by the course adopted by the Committee of Recommendations. Whether from time to time it may not be possible to obtain the occasional reading of some of our papers in Section D (Biology) is a supposition which I must leave to those anthropologists who would care to have their papers read in such a way; but the official declaration of the President of the Association that ethnology should remain a part of Section E, and that consequently anthropology might seek its own habitation elsewhere or nowhere, appears to my mind effectually to preclude our due recognition for many years. Into the future, however, I shall not look; as the task of recounting the difficulties of the present is quite great enough.

On the request of the authorities of the Association, the diagram illustrative of Dr. Hunt's explorations at Carnac were exhibited, as well as a few of the specimens obtained in Zetland, at the second

great conversazioni in the Town Hall. The whole of the Zetland collection was the next day exhibited in the apartments at Queen's College, and inspected by many persons. It is my duty here to acknowledge the kind assistance and support which I and the other delegates of the Anthropological Society received from the authorities of Queen's College, to whom the hearty thanks of the Society are officially due.

To the numerous Fellows of the Society who supported our cause by their votes and influence great thanks are also due; and I hope that the representatives of the Society next year will not solicit the same support from them in vain.

All the events which took place at Birmingham have shown that we have a hard and an up-hill battle to fight. I have, however, perfect confidence that the day will arrive when the science of man shall receive its recognition before the Scientific Congress of England, when the memory of the intrigues which have disgraced the Birmingham meeting of the British Association shall have all passed away.

The PRESIDENT proposed that the thanks of the Anthropological Society should be given to the Warden and Council of Queen's College, Birmingham, for the facility so readily offered by them to the deputation from the Society, who were urged by the authorities of the college to proceed to hold the proposed anthropological congress in their lecture rooms and hall. The deputation from the Society, however, did not proceed to do so for the reasons assigned by Mr. Blake in his report. The Dean of the Faculty of the college also kindly offered, if on any future occasion the Anthropological Society thought fit to hold a congress in Birmingham, to place all the rooms of Queen's College at their service.

Mr. MACKENZIE said it was highly satisfactory to him to have to second the resolution, which he did very cordially. He went to attend the meeting of the British Association at Birmingham as an unfettered and independent member of this Society. He found at Queen's College much that interested and instructed him; it was particularly interesting, because it presented two aspects. Having been established for one purpose it had been also applied to fulfil another. Though originally intended for a place of more especially religious tuition, it was now chiefly a medical school and museum. It was a very useful and liberal institution, and he wished Queen's College the same degree of success that he felt assured the Anthropological Society would ultimately attain. With respect to Mr. Blake's report, especially that part of it referring to Section E, he must say that he did not share in his despairing views. He regarded the Anthropological Society as a certain success, but it was a question of time. Their object was to promote the science of man, politically, socially, and physiologically considered, and in his opinion they had rather gained than lost ground by what occurred at Birmingham. In the committee of Section E he moved a resolution, identically in the terms named in the report; but an amendment was proposed by Mr. Burke and seconded by Mr. Crawford, who were his proposer and seconder,

and only exponents on the sectional committee, for the purpose of settling the question between ethnology and anthropology. They said they liked the meaning expressed best in English, and wanted the term "science of man" to be substituted for the word "anthropology". Now he maintained distinctly that, in accordance with the derivation of the words from the Greek, there is no difference whatever between the signification of the word "anthropology" and the "science of man". The object of that Society, however, was not to promote personal quarrels but anthropological science, and he regretted that any personal feeling should be mingled with their proceedings. He wished it to be distinctly placed upon record, that Mr. Burke and Mr. Crawford at Birmingham established the "science of man" in Section E, and were willing to go with him (Mr. Mackenzie) substantially in the resolution he had moved. After the meeting, indeed, Mr. Burke, on meeting him, said he (Mr. Mackenzie) was, on the subject of anthropology, as mad as a hatter, and he had replied to that remark, that Mr. Burke always saw himself in other people.

Mr. D. W. NASH regretted to have heard in the report the observation that the ethnological papers read at Birmingham were unworthy of the notice of their official reporter. He thought that expression should be removed from the report. Even if that were the opinion of Mr. Blake, still he should recommend that words so strong, and so little calculated to give pleasure and to keep the peace, should be removed, for they would add fuel to the flames.

Dr. CAPLIN observed that it was an admitted maxim, that the way of getting on in this world was to make as many friends as you can. In accordance with this maxim, therefore, it would be wiser to make that expression a little softer.

Mr. LUKE BURKE said, that if the meeting understood the nature of the proceedings at Birmingham from what they had heard that evening, he must congratulate them on the facility of their apprehension; for if he had not been there he should have been in the greatest ignorance of what had really occurred from hearing the report. He objected to Mr. Blake's tendency to attribute motives, and he differed materially from him as to the opinion he had expressed on the value of the ethnological papers. To pass an opinion of that kind on a body generally supposed to be a rival society, was, he considered, an exceedingly indiscreet act. He repudiated, so far as he was concerned, all those attributions of motives contained in the report, which were derogatory to those who made them.

The PRESIDENT observed that Mr. Blake in his report did not attribute motives to any one, therefore Mr. Burke was wrong in saying so. As to the opinion expressed in the report of the value of the papers read at Birmingham, he must say that Mr. Blake was deputed by the Society to go there and make his report, and, in the capacity of their reporter, he spoke freely what he thought of the ethnological papers. They might have their own opinions on the subject, whether he was right or wrong, but what he had stated was his own impression, and for his (the President's) part he thought it right on such occasions to speak in bold language—he liked to hear a spade called a spade.

But there was no necessity to use strong language. They had a strong case, and it was only injuring it to do so.

Mr. RICHARD LEE said he was not at Birmingham, but he had formed an opinion of what had occurred from the report in the *Anthropological Review*, and he wanted to take that opportunity of saying that he thought that Society and the Ethnological Society were retarding the progress of the objects they had in view by wasting time in little disagreements between themselves. Therefore, if in the report there was any language that was strong, and calculated to irritate, it would be to the credit of the Society that the words should be withdrawn. He regretted that even on that evening so much time had been wasted. The best plan to adopt would be to let the Ethnological Society follow their course and for this Society to follow theirs, and that it would be much better to avoid contact with the Ethnological Society as far as possible. The observations that had been made by Mr. Crawford on the members of this Society were not only offensive, they were discreditable to Mr. Crawford himself as a man of science; but it was beneath their dignity to take notice of such remarks. For his own part, he had not the smallest doubt of the result, and that the success of this Society would be far beyond anything that the Ethnological Society could ever hope for; and they might safely be let alone.

Mr. CARTER BLAKE was glad to have heard the remarks of the gentlemen who had expressed their opinions on his report. He fully agreed with what Mr. Lee had said, and for his own part he must say that no one could be more ready than himself to withdraw the words objected to. He withdrew them in every way. The proceedings at Birmingham formed quite an era in the history of science, and, as the reporter of that society, he could not fail to take notice of them.

The PRESIDENT then put to the vote the question, "That the special thanks of the society be given to the Warden, the Dean of the Faculty, and the other authorities of Queen's College, Birmingham, for the liberal manner in which the College Hall, Lecture-rooms, and Library were placed at the disposal of the Society during the recent meeting of the British Association," and it was carried unanimously.

The PRESIDENT, having resigned the chair to Dr. Seemann, proceeded to read the following paper, which will be printed at length in the second volume of *Memoirs*—"On the Archaic Anthropology of the Zetland Isles." By Dr. James Hunt, F.S.A., Pres. A.S.L. The author of the paper gave an account of a recent visit made by him to the Zetland Islands, with the object of investigating the antiquarian relics reported to exist in those islands. He first visited Unst, the most northerly of the group; but found the chief objects of interest had been previously explored. He proceeded to examine the other islands, and described the results of an exploration of several large tumuli, which were chiefly composed of burnt stones. In one of these a stone hammer was found, of a unique pattern. In the interior of most of these tumuli there were found ruins of some building. In one case the structure was nearly complete, and resembled what is known as the "beehive" house. In another tumulus there was found a large upright stone

with a hole in the centre, the first instance, the author thought, of such a stone being found within a tumulus. He gave a detailed account of the discovery of an underground structure, from which were dug a large number of rough stone implements, resembling in form and size those which have been found in Pressigny-le-Grand, in France, and the uses of which have occasioned considerable discussion. These implements (which are not of flint, as are those of Pressigny-le-Grand) were exhibited to the Society, and the author brought forward the various theories current as to the objects of these and similar stone implements, at the same time stating his opinion that any definite conclusion as to the purposes or age of these objects could not be formed from the present data, and considered the subject as one of great importance, and deserving of further investigation by the Society. The author of the paper mentioned by name the various gentlemen to whom he was indebted for acts of courtesy whilst prosecuting his investigations, and mentioned especially the liberal donation of the Earl of Zetland, to assist in carrying out the researches which have been made under the auspices of the Anthropological Society.

Mr. RALPH TATE, who accompanied the President to the Zetland Islands, then submitted a report of the results of his explorations. This report will be printed at length in the *Memoirs*:—"Report on the Zetland Anthropological Exploration." By Ralph Tate, Esq., F.G.S., F.A.S.L. The author described the excavations conducted under his superintendence at the Mückle Heog, Isle of Unst, Shetland, which afforded remains of many human individuals, urns formed of steatite, and bones of domestic animals, birds, and fish, with numerous shells. He described some skeletons found by him in the Island of Uyea, where two adult skeletons were lying on a bed of fishbones.

Dr. SEEMANN proposed the thanks of the meeting to Dr. Hunt and Mr. Tate for their valuable and interesting reports of their explorations, which were unanimously accorded.

Mr. MACKENZIE remarked, with respect to the tumulus, that he thought it would be better to have something like a builder's estimate of the quantity of materials it contained, than such a general description as had been given.

Dr. HUNT stated that the tumulus at Safester was eighty feet in diameter, and fifteen feet high.

Mr. RALPH TATE said it might be thought extraordinary that he, who accompanied Dr. Hunt, should require any explanations; but, as he had confined his explorations to the most northern of the Zetland Isles, he had not seen the tumulus, and he wished to know whether the whole mass was formed of burnt stones.

Dr. HUNT replied that the whole mass of small stones in the tumulus was so composed.

Mr. RALPH TATE said he was induced to ask the question, because he suspected that the appearance of having been burnt might be accounted for by the nature of the work. In one instance he was acquainted with, similar stones, consisting of blocks of mica, were covered naturally

with a black incrustation, from which it might be supposed they had been burnt.

Mr. D. W. NASH mentioned a tumulus on the Cotswold hills, that was formed of burnt stones. A wall about three feet in height had evidently been burnt. It was a fact on which he would not offer an opinion.

Dr. SEEMANN, referring to the collection of stone implements on the table, said that one of them looked like the stones used by the Eskimos for cleaning skins. With regard to the large round stone with a hole in it, such stones were said to have been used by some savage tribes when any compact was entered into, the parties shaking hands through the hole. He had read accounts of such a proceeding in cases of marriages.

Mr. NASH observed that a stone of that kind existed in Abury. In plighting troth, the man and woman joined hands through the hole.

Dr. HUNT said the chief interest in the stone consisted in finding it in a tumulus. Stones of that kind were not very uncommon; but he believed the one he had discovered was the first ever found in connection with a tumulus. With respect to the burnt stones, on which Mr. Tate had commented, he must observe, that no one who had examined the tumulus had any doubt that the stones had been burnt. The observation of Mr. Nash was interesting, as it showed that the finding of such stones in a tumulus was not unique, but that the whole of the tumulus should have been formed of burnt stones he believed to be unprecedented. With respect to the cairns found by Mr. Tate in the gully of a sand bank, he did not think there was sufficient evidence of their great antiquity. Mr. Tate had endeavoured to make out that they could be traced back for three hundred years, at least. His (Dr. Hunt's) opinion was, that the written documents referred to, in proof of that degree of antiquity, were worth very little. There had been no roads in the island until within the last few years; and the whole district was a perfect wilderness, and had but recently been allotted. It did not require a long period of time to cover such places as those, where the cairns were formed with sand, and to uncover them again. The documents referred to did not prove anything; and he believed the heaps of stones to be nothing more than the burial-places of shipwrecked mariners. The bodies of natives were not found buried so close to the water. He was inclined to doubt that they were three hundred years old.

Mr. R. TATE replied to the remarks of Dr. Hunt, and contended that, from the well known accumulation of sand on the island, from the geological evidence of great oscillation of level, and the formation of peat-mosses covering trees that do not grow there at the present time, it was clear that the cairns must be of great antiquity. Had the bodies interred been those of Norwegian mariners, they would not have been buried with so much care, and placed exactly north and south. The skull itself might afford some evidence of the period of the interment. The question could not be answered directly; but he hoped that the meeting would not attach want of antiquity to the bones until the subject had been further investigated.

On the motion of Dr. SEEMANN, the thanks of the meeting were unanimously given to the Earl of Zetland, and to those who had assisted Dr. Hunt and Mr. Tate in their explorations.

The PRESIDENT, having resumed the chair, announced that the Council had found that the finances of the Society, in consequence principally of the heavy expenses incurred in the publication of their works, were not in so satisfactory a state as at the last anniversary meeting; and he begged to state that, unless they elected a considerable number of Fellows before the next anniversary, there would not be that favourable balance to present as on the last occasion. He felt assured it was only necessary to mention that fact, to induce every one to exert himself to increase their numbers.

The meeting then adjourned.

DECEMBER 5TH, 1865.

JAMES HUNT, Esq., Ph.D., F.S.A., PRESIDENT, IN THE CHAIR.

THE minutes of the last meeting were read and confirmed.

The names of the following newly-elected members were announced:—James Bain, Esq., 3, Park-terrace, Glasgow; Henry Jules Blanc, Esq., M.D. Paris, M.R.C.S.E., Abyssinia; Sydney L. Blanchard, Esq., Arundel Club, W.C.; S. Phillips Day, Esq., M.A., 1, New Millman-street, Guildford-street, W.C.; Frederick Green, Esq., 17, Stratford-place, W.; Captain H. G. Gridley, Esq., M.P., 26, Wilton-crescent, W.; Thomas Moreton Johnson, Esq., Mostyn-cottage, Merton, Surrey; William Lawson, Esq., Brayton, Cumberland; the Rev. Frederick George Lee, D.C.L., F.S.A. Lond. and Scot., 19, Coleshill-street, Eaton-square; Joseph Stevens, Esq., Belford-lodge, Clapham-road; Thomas Wade, Esq., H.M. Secretary of Legation, Peking.

The following presents were announced, and thanks were voted to the respective donors:—

Psychoneurology, by R. T. Stothard, Esq. (the author). Merlin the Enchanter and Merlin the Bard, by D. W. Nash, Esq. (the author). Cast of head of native Australian (H. Brookes, Esq., F.A.S.L.) Eichthal; De l'usage pratique de la langue Grecque; Maltebrun, Anniversary address to the Paris Geographical Society; Mortillet, Les Terramares de Reggianais (by Dr. Hunt). Belzoni, Travels in Egypt; Bowring, Siam (by S. Edwin Collingwood, Esq., F.A.S.L.)

Dr. BEDDOE read a paper "On the Evidence of Phenomena in the West of England to the Permanence of Anthropological Types," of which the following is an abstract. The entire paper will be inserted in the second volume of the Society's Memoirs:—

"The paper was based mainly on certain tables, shewing the birth-places, and the colours of the hair and eyes, in upwards of 4,000 persons, whom he had had opportunities of observing in the course of his hospital practice at Bristol. These tables shewed a great prevalence of dark hair and eyes among the Welsh, and of dark hair, often coupled

with light eyes, among the Irish and the Keltic people of the west of England. The natives of portions of Wiltshire and Gloucestershire were more frequently light-haired; and those of Bristol occupied an intermediate position. These facts might, the author thought, be pretty easily accounted for on the theory of permanence of chromatic type; but would hardly lend themselves to any other doctrine; though he allowed that the eyes were rather more frequently dark in the natives of the towns, than they should have been according to his theory. He reserved the evidence derived from the skull-forms for a subsequent paper."

The PRESIDENT, after having proposed the thanks of the meeting to Dr. Beddoe for his interesting paper, proceeded to observe that it was a paper of great value to those who study man as a science without limiting their consideration to race. It was an interesting question connected with the progress of civilisation and its effects, whatever they might be, to determine the difference of the type between those who live in large towns and those who dwell in the country. Dr. Beddoe was one of the most careful observers of the present day, and the results of his extended observations were placed in a tabular form at the end of the paper; they were most important, but they had not been read, as it would have been impossible to understand them on mere perusal, for they required attentive examination. They extended over a large area in the course of his hospital practice, and would be found of great value. It would be impossible on that occasion to go into all the questions that had been raised in the paper, and he (the President) hardly thought that Dr. Beddoe had put forth the opinion he advocated—that the Teutonic tribes were fairer than the Britons—as more than a speculation. There had been little evidence adduced to support such an assertion. It might, on further examination, prove to be true, but such a conclusion could only be arrived at by extended observations made in the same manner as those of Dr. Beddoe, and he hoped that that gentleman's good example would be followed by other anthropologists in this country.

Mr. WALKER said he had taken great interest in the paper, but he considered further information was required before they could decide what had been the influence of the Teutonic invaders, especially in the west of England. In South Wales, it had been observed, the hair of the people was darker and more curly than in other parts of the country, and that they resembled somewhat the natives of Spain; from which country it had been supposed they derived their origin. He had been much struck with the number of dark complexions he had seen in that part of the country, for it was known that the aboriginal natives of Britain were fair. There would be little doubt of distinctive differences; the only doubt in his mind was, how far the cause of the difference could be traced, and whether it was attributable to difference of race. The effect of the Teutonic invasion was far from general, as an indication of which he mentioned that the people of Wiltshire spoke Welsh for four hundred or five hundred years after that period. Admitting the fact that the distinctions noted in the paper exist, it still

would remain an open question whether the difference was attributable to difference of race or to local causes.

Mr. CARTER BLAKE said he would only advert to one little point in the very able paper of Dr. Beddoe, touching on comparative anthropology, on which he begged to ask a question; though it was, perhaps deviating from the exact topic of the paper. He hoped Dr. Beddoe would be able to tell something about the introduction of Flemish blood into Wales within the historic period of Milford Haven; and whether there is any real difference between the complexions of the people in that part of Wales and the coloured boundary line in Berghaus's atlas; whether, in short, there is a marked apparent distinction between the supposed Flemings and the ancient Silures. He should further wish to know whether in the differences of the complexions of the people in the districts named in the paper Dr. Beddoe could correlate that distinction with the distribution of the British tribes who inhabited that district.

Dr. SEEMANN observed that the author of the paper might have added to the inhabitants of towns who have darker complexions than those of the surrounding country the city of Hanover, where the contrast between the two is very remarkable. As it appeared doubtful what were the complexions and colour of the hair of the invading Saxons, he thought some information on the subject might be derived from existing proverbs and prejudices. It was a curious fact that among the Germans there is a great prejudice against red hair, while in Spain the contrary sentiment prevails; and he thought that if the majority of the Saxons had had red hair those who inhabit the country they came from would not taunt those who had hair of that colour.

Dr. CAPLIN felt indebted to Dr. Beddoe for his interesting communication, but he should like to see some useful deductions drawn from the distinctions of colour that he had noticed. It had been asserted by some authors that people who have different complexions possess different mental and physical characteristics, and are liable to different diseases, and he should be glad to hear whether there be any truth in such opinions.

Mr. NAPIER considered the kind of hair highly important as an indication of general character; but, in considering that question, it would be requisite to take into consideration the texture of the hair as well as the colour. Black hair, if coarse, was very different in its anthropological indication from fine black hair. Those persons who have coarse black hair have generally a vigorous temperament, but those who have thin black hair are the reverse. With respect to the alleged difficulty of rearing fair children, he differed from Dr. Beddoe; for, if not too fair—approaching to the albino—a fair complexion he considered was generally accompanied with strength and vigour. The most vigorous men and children had light strong hair. They might not be so fit to contend with a tropical climate, but they get on better in our country. It must be observed, however, that persons with very coarse black hair have generally much physical power. He had noticed that different texture of the hair is accompanied with different styles of features. Those who have strongly marked features generally have

black coarse hair. The reverse is the case when the hair is fine ; for then the features are mostly small and delicate. With regard to the term melancholic temperament, which had been used by Dr. Beddoe, he should like to know its meaning. If it signified melancholy disposition, Lavater had given a figure of such a person in which the features had a marked melancholy expression and such a disposition was generally accompanied with black hair. He objected to the term melancholic temperament, because it conveyed no definite meaning. A bilious temperament, which partly includes melancholic, but not exactly, he considered a preferable term. With respect to the influence of town life on the complexion and colour of the hair, he thought that it had not much to do with the change of colour, and that the colour of the hair had not much to do with the temperament, which was more associated with the texture than with the colour of the hair. Colours, he thought, were somewhat significant of character in other parts of living creation, in which black hair generally indicated power. That observation applied to all animals, and even to fruit, the dark coloured having most strength and flavour ; and even among the black races of men there was much physical power.

MR. RICHARD LEE dissented from the opinion that persons with black hair are better calculated to bear change of climate, than those who have light hair, and asserted that persons with light hair can adapt themselves to the change better than those whose hair is black. He took exception also to Mr. Napier's assertion that the difference in the colour of the hair, indicates difference in energy. All nations who have shown the greatest energy he contended were fair-haired people. He adduced the Chinese as contradicting the opinion that dark and coarse haired people are more energetic than those with fair and fine hair ; for the Chinese have generally dark and coarse hair, yet are most torpid. The American tribes of Indians and the aboriginal Australians were also adduced as contradicting Mr. Napier's opinion. The latter people were of one origin, yet the hair of the different tribes was of all descriptions, excepting as to colour, and was of all kinds of texture. He should be glad if data could be found whereon to place this question on a more satisfactory basis.

MR. J. MEYER HARRIS said his experience was completely opposed to the assertion of Mr. Napier, that persons with dark hair could bear a hot climate better than those who had fair complexions and light hair. He spoke particularly as to red hair, for he knew that persons with hair of that colour stand a hot climate better than those who have dark hair, and in making his selection of men to go to Africa, he always preferred those with red hair.

MR. S. EDWIN COLLINGWOOD corroborated Mr. Harris's opinion by mentioning one instance of a gentlemen with fair complexion who had resided in good health for twenty years on the Gold Coast and Sierra Leone, while all his friends there died.

DR. BEDDOE replied to the remarks on his paper. With regard to Mr. Watkins's observations about the people of Wiltshire he did not mean in his paper to say that they were pure Saxons, but merely that the Teutonic race preponderated in some parts, and that there was

considerable difference in the appearance of the people in different districts. At Calne, gray eyes and dark hair are prevalent; about Wilton, the people are fair, and have the Teutonic form of head; at Southampton, the type is fairer than among the majority of the people of Wiltshire, and on approaching the focus of the Saxon invasion, Teutonic resemblances become stronger. Mr. Blake had asked whether the differences he had observed had any relation to the differences that might have existed between the Belgæ and the Dobuni. He was not prepared to say he had found such differences. Both north and south of the Belgic frontier there was a mingling of dark and fair. Mr. Rowland Williams had said of the people of S.W. Wiltshire, that neither Saxons nor Celts, but pre-Celtic he thought them; and if there were any relics of the Belgæ, they would be found there. With respect to the characteristics of the people of Milford Haven, he had seen few of them: the Teutonic type did occur there, and the natives all testified to the distinction of race: but judging from the family names he did not think the prior Welsh population had been completely expelled. As to the prevalence of diseases among people of distinct complexions, he had paid some attention to that subject, but he considered it was one that belonged rather to medical science than to anthropology. In an article in the *British Medical Journal*, two years ago, he had expressed the opinion that consumption is not more prevalent among fair-haired persons than among those with black hair. Those who were least liable to that disease he thought were persons whose hair is of an intermediate colour. Cancer generally attacks persons with black hair, while light haired individuals are most liable to skin diseases. With regard to the term melancholic temperament, he meant by it to express something answering to the description given of it by the ancients, and it was generally accompanied with black or dark hair and a dark complexion, hypochondriacs being often found in that class. Sanguine people (who are often red-haired), on the contrary, often go on suffering, even to the point of death, without making any complaint; and it is difficult to make them comprehend that they are in danger. Whether fair-haired people adapt themselves to change of climate better than those who have dark hair, is a question of extreme importance and should be carefully investigated. He must confess he had heard the opinions that had been expressed on the subject with some surprise; for the impression on his mind was that most of the recent African travellers have dark complexions.

A paper contributed by Dr. Charnock, "On Cannibalism in Europe," was, in his absence, read by Mr. C. Carter Blake.

Cannibalism in Europe. By RICHARD STEPHEN CHARNOCK, Ph.D., F.S.A., F.R.G.S., F. and Treas. A.S.L.

THE discussion last year at the Anthropological Society of London upon certain remains at Caithness, has opened up the question whether cannibalism has ever been practised in Europe? The subject is, of course,

unpalatable to Europeans, and perhaps few will be inclined to believe in it. When, however, it is taken into account that the inhabitants of Europe were at one time quite as savage as those who have practised, or who still practise this crime, surely the present generation need not blush to admit the fact. It may be thought out of place to refer to fabulous history; but the question arises, what is, and what is not, fabulous. Until the discovery of gold in California, El Dorado was looked upon as a myth. Again, it was customary to scout as fables all stories of Amazons, or even of an established equality in any nation of women with men; but the travels of Captain Burton and Dr. Livingstone have proved that in parts of Africa such a position is actually occupied by the female sex at this day.* In the Homeric poems the Cyclops are a gigantic, insolent, and lawless race of shepherds, who lived in the south-western part of Sicily, and devoured human beings.† We learn from Porphyry, that in Chios and Tenedos, the votaries of Bacchus sacrificed to him, *ανθρωπων διασποντες*, tearing a man limb from limb, and eating him, no doubt, as the *ψυχοφαγια*, or eating raw flesh, was one of the peculiar rites of the Dionysiac mysteries. According to Sextus Empiricus, the first laws that were made were for the prevention of this practice, which Greek writers represent as universal before the time of Orpheus. "Fabulous history", says Dr. Brewster,‡ "is full of accounts of anthropophagi. According to some authors, to eat human flesh was a primitive and universal custom. Thus Entremerus informs us, as the passage has been translated by Ennius (quoted by Lactantius *Divin. Institut.*, vol. c. xiii, p. 59), that Saturn and Ops, and the rest of mankind in their time, were accustomed to feed on human flesh. *Saturnum et Opem, ceterosque tum homines humanum carnem solitos esitare*. The first step towards civilisation was the abolition of this barbarous custom; and Orpheus is thought to have had the merit of this reformation. What Horace says concerning him cannot well be understood except as relating to this practice:—

"Cædibus, et victu fædu deterrent Orpheus."

By the poets, the Læstrygones, the Lamæ, the Sirens, and the Cyclops are all celebrated as infamous Anthropophagi. Circe and Scylla come under the same character as individuals. A horrid account is given by Homer of the fate of Ulysses' companions in the Cyclops' den—

"Torn limb from limb, he spreads the horrid feast,
And fierce, devours it like a mountain beast.
He sucks the marrow, and the blood he drains;
Nor entrails, flesh, nor solid bone remains."

Though these accounts be overcharged and mixed with fable, there can be little doubt that they are founded on the manners of the times; for we find the same accounts given by grave historians, and authenticated by all the evidence which the nature of the case will admit. Indeed Diogenes, Chrysippus, Zeno, and most of the stoics main-

* Rawlinson's Herodotus.

† Hom. Od., vi, 5, ix, 106, etc., 190, etc., 240, etc., x, 200.

‡ Encyc. Brit.

tained that there was nothing unnatural in the eating of human flesh, and that it was more reasonable to use dead bodies for food, than to give them a prey to the worms and to putrefaction.

A late French writer* says :—"Et d'ailleurs, si l'on considère l'anthropophagie sous le point de vue sérieux et rationnel qui convient à notre époque, il est facile de voir que le crime est dans le meurtre qui précède, et non dans l'acte de manger la chair de son semblable. Cette chair ne présente pas de différence appréciable avec celle des animaux que nous employons pour notre nourriture ; et les personnes qui se sont trouvées dans l'obligation de s'en nourrir, dans de pénibles circonstances, ne lui ont trouvé aucun goût désagréable : les sauvages prétendent même qu'elle est fort bonne. Ils répondront d'ailleurs victorieusement, par leur vigueur et leur santé robust, à ceux qui voudraient faire supposer à cette chair des qualités nuisibles, quand même des exemples plus récents et plus voisins ne seraient pas là pour démontrer le contraire. Si donc, dans les cas où des individus ou des populations se sont trouvés réduits à se nourrir de chair humaine, on a observé une grande mortalité, c'est moins à cette nourriture qu'il faut l'attribuer qu'aux circonstances au milieu desquelles on a été forcé d'y avoir recours."

St. Jerome, after stating that the Sarmatæ, Quadi, and several other nations, eat the flesh of horses and foxes, says :†—"What shall I say of other nations ; when I myself, when young, have seen in Gaul the Attacoti (by others the Scotch), a British nation, who, though they might have fed on swine and other animals in the forest, chose rather to cut off the posteriors of the youths and the breasts of the young women, and considered them as the most delicious food." To which Voltaire adds, "Pelloutier, who sought for everything that might do honour to the Celts, took the pains to contradict Jerome, and to maintain that his credulity had been imposed upon. But Jerome speaks very gravely, and of what he saw. We may, with deference, dispute with a father of the church about what he has heard ; but to doubt of what he has seen is going very far. After all, the safest way is to doubt of everything, even of what we have seen ourselves." The Attacoti in Britain are said to have inhabited the whole country from Loch Fine, on the west, to the eastward of the River Leven and Loch Lomond, and to have been called in ancient British, *Eithacoeti*, or the men dwelling along the extremity of the wood. My friend, Mr. C. Carter Blake states in a private note that the "most correct edition‡ of the father gives *Atticolas*, instead of *Atticotos*"; but this only fixes the practice to a greater certainty upon the Gaels ; for if the proper form of the word is *Attacoti* or *Eithacoeti*, it would seem to come from the

* Encyc. des Gens du Monde.

† "Quid loquar de cæteris nationibus, quùm ipse adolescentulus in Galliâ viderim Atticotos [Al. Scotos], gentem Britannicam, humanis vesci carnibus, et quùm per silvas porcorum greges pecudumque reperiant, tamen pastorum nates et fœminarum papillas solere abscindere et has solas ciborum delicias arbitrari."—Hieron., ii, 335 ; Migne, *Patrologie, Cursus Completus*, t. xxii, 24.

‡ Edit. Vallarsii, lib. ii, cap. vii, tom. ii, p. 355. See also Buchanan, lib. ii ; Rerum Scotticarum, etc., p. 17 ; Amm. Marcell., lib. xxvi, c. iv, and lib. xxvii ; and Hieron. Epist., 69, No. 63.

Welsh *coed*, a wood, whereas *Attacoli* is more probably from the Gaelic *coille*, of the same meaning.

The inhabitants of Iris, i.e. Ireland, were anciently reputed to be eaters of human flesh.* According to some writers, the Galatæ who dwelt in Europe also practised this custom.† Speaking of the Gauls, Diodorus Siculus says:—"The women here are both as tall and courageous as the men. The children for the most part from their birth are grey-headed; but when they grow up to man's estate, their hair changes in colour like to their parents. Those towards the north, and bordering upon Scythia, are so exceedingly fierce and cruel that (as report goes), they eat men like the Britains that inhabit Iris." Pliny mentions the Essedones as a barbarous people, who eat the flesh of their friends after death, and made drinking-bowls of their skulls. Herodotus,‡ who styles them *Issedones*, says:—"When a man's father dies, all the near relations bring sheep to the house, which are sacrificed, and their flesh cut in pieces, while at the same the dead body undergoes the like treatment. The two sorts of flesh are afterwards mixed together, and the whole is served up at a banquet. The head of the dead man is treated differently: it is stripped bare, cleansed, and set in gold. It then becomes an ornament on which they pride themselves, and is brought out year by year at the great festival, which sons keep in honour of their fathers' death, just as the Greeks keep theirs. In other respects, the Issedonians are reputed to be observers of justice; and it is to be remarked that their women have equal authority with the men. Thus our knowledge extends as far as this nation." The Essedones were a Scythian people, who lived partly in Europe and partly in Asia,§ but there is no proof that the boundary line in any-wise affected their habits and customs. Among the Massagetæ, who had a community of wives, when any person grew old, they killed him and ate his flesh; but if he died of sickness, they buried him, esteeming him unhappy. The Massagetæ were a people of Central Asia; but were looked upon as a part of the Scythian nation, which also inhabited Europe.||

"In the middle ages, it is true," says a late writer,¶ "these stories of cannibalism were wonderfully enlarged, and people who had not embraced Christianity were pretty generally set down as anthropophagi. When the Lombards invaded Italy at the end of the sixth century, it was reported of them that they ate human flesh; and a century later the same aspersions were cast on the Slavonian tribes. It became the fashion to bandy the accusation between enemies; thus, during the Crusades, the Saracens said the Christians ate human flesh, as well as the unclean flesh of swine; while the Christians on their side maintained that the Saracens ate men, women, and

* See I. Boëm. *Mar. Lex.*, et *Rit. Omn. Gent.*, Genev., 1620; Diodorus, *Sic.* v, chap. ii.

† *Ibid.* He calls Ireland, Iris; a word doubtless corrupted from *Iépus*.

‡ B. iv, c. xxvi.

§ See Mela, ii, 1, 4; Plin., H. N., iv, § 26, vii, § 7, and c. xvii, § 19.

|| Cf. Rennell's *Geog.* of Herodotus, s. x; Arrian, iv, 17; Plin., H. N., v, 9.

¶ P. Cyc.

children, and were particularly fond of a sucking Christian babe torn fresh from the breast of its mother. The giants and ogres of our nursery tales are only the Saracens of the holy wars seen through the magnifying glasses of tradition and romance. It does not much surprise us that in those rude ages men should try to fix a revolting practice on their sworn foes, but we can hardly understand why the minstrels of the Christians should convert their most approved heroes into cannibals, and praise them for the quantity of infidel flesh they devoured. Yet our Richard I is put in this predicament by the author or authors of the romance of *Richard Cœur de Lion*. According to the poem, the first symptom of the king's recovery from a dangerous sickness at Acre, was a violent longing for pork, and as pork was difficult to procure in a Mohammedan country, his cook dressed him a Turk's head, of which Richard ate with a good appetite, and felt himself quite well in consequence. After some more repasts of the same kind, he is made to say—

'King Richard shall warrant,
There is no flesh so nourissant
Unto an English man,
Partridge, plover, heron ne swan,
Cow ne ox, sheep ne swine,
As the head of a Sarezyne!'

It would doubtless be going too far to assert that in modern times any European nation or tribe has been addicted to cannibalism. Many solitary cases have however occurred in different parts of Europe. According to Reinard,* Tarik (from whom Gibraltar, *Jibāl Tarik*, had its name) killed his prisoners, and served them up as rations to his troops. "This delicacy," says Mr. Ford, "formed a *rechauffé* in modern Spanish bills of fare: the *entrée* was pleasantly called *un guisado à la Quesada*, the patriotic *nacionales* having killed and eaten part of that rough and tough royalist in 1836." In Germany, during the reign of Joseph II, gypsies have been known to murder travellers, cut them to pieces, salt and eat them. The history of Milan furnishes an extraordinary instance of anthropophagy. In that city, in the year 1519, a woman was broken on the wheel and burnt for enticing into her house children whom she killed and salted. It seems she had carried on the practice for a considerable period. During the late well meant, and at the same time futile attempt to unite Italians, Greeks, Celts and Germans into what has been absurdly denominated "Italian nation", numerous instances of cannibalism have been recorded. One of the most revolting cases that has happened in France is that of the brigand, cannibal Ferrage. Blaise Ferrage, surnamed Seyé, was born at the village of Ceseau in the Comminges, where he followed the business of a mason. At the age of twenty-two he retired to the mountains of Aure, where he took up his abode in the hollow of a rock, whence he decoyed the peasants, and having first robbed them, assassinated and devoured them. "Il préférait, disait-on, pour ses repas de cannibale, les femmes, et surtout

* Inv. des Saracins.

† Encyc. Met.

les jeunes filles. Les cadavres des hommes qu'il égorgeait ne pouvaient satisfaire que sa voracité, tandis qu'il pouvait commettre un double crime sur ceux des femmes qui expiraient sous ses coups, et qui, avant de devenir sa pâture, servaient à satisfaire sa luxure. La plus tendre enfance n'obtenait même pas grâce à ses yeux, et le fer prêtait au besoin son secours à ses attentats."

An account of this monster is found recorded in the *Causes Célèbres*.* He was broken on the wheel on the 13th December, 1782. A still more horrible case occurred in Scotland in the time of Elizabeth of England. Sawney Beane, his mistress, and family, lived for twenty-five years in the county of Galloway in a cavern washed by the ocean. In the neighbourhood they waylaid travellers, none of whom were ever afterwards heard of, either living or dead, a circumstance which created great surprise and alarm in the vicinity. The discovery was made in the following manner. On one occasion a man and his wife were attacked whilst passing through a forest. The husband escaped, having first been compelled to witness the murder of his wife. Subsequently the king in person, with a force of four hundred men scoured the country, and, after some difficulty, discovered the lair of the Sawney family. On entering the cavern, legs, arms, thighs, hands, and feet of men, women, and children were found hung up in rows round the walls like dried beef; and a great many limbs lay in pickle. There was also discovered a good deal of money, besides watches, rings, swords, pistols, clothes, linen, etc., thrown together in heaps. Sawney's family, at the time of their capture, besides the lord and master, included his wife, eight sons, six daughters, eighteen grandsons, and fourteen granddaughters, all born in incest. They were all executed in a most barbarous manner and without trial. It was reckoned that at least one thousand men, women, and children had fallen victims to this monster and his family. A full account of the case, with an engraving of the brigand-cannibal's den, will be found in Captain Charles Johnson's *History of famous Highwaymen*.† In some instances the desire for human flesh appears like other perversions of the appetite, to have been occasioned by disease. Migne‡ says:—"Certains hommes sont saisis tout à coup d'une affreuse manie: ils tuent et dévorent leurs semblables. Plusieurs faits de ce genre ont été recueillis par le professeur Chr. Grüner d'Iéna. Des femmes enceintes éprouvent le même désir. Enfin, cette passion semble quelquefois se perpétuer dans une famille et se transmettre héréditairement, comme une disposition physique ou morale, des pères à leurs enfants." Thus, in Germany, one Goldschmidt, a cowherd, who had committed a murder, and, to prevent discovery, had cut the body in pieces, suddenly felt a craving for human flesh, and, after devouring the body of the murdered man, afterwards killed an infant in order to gratify his unnatural longing. Boethius, in his history of Scotland,§ mentions an instance in Angus, where this disease seized a whole family, consisting of a man, his wife, and children. They had killed and eaten several persons

* 1^{re} S., t. iv, 59, Paris, 1835.

† Dict. D'Anthrop., t. xlv, p. 1041.

† London, fol., 1734.

§ Lib. xviii.

whom they had enticed into their dwelling. They were all sentenced to be burnt alive except one daughter of tender years, but scarcely had the latter reached her twelfth year when she was executed for the same crime.*

Many cases of cannibalism have been caused by sheer famine. On the retreat from Moscow the soldiers are said to have been compelled to eat the bodies of their deceased comrades. Voltaire speaks of one instance, in his own province, attested by Julius Cæsar. The latter was besieging Alexia, in the Auxois. The besieged having resolved to defend themselves to the last extremity, and wanting provisions, a great council was assembled, in which one of the chiefs, Critognatus, proposed that the children should be eaten one after another, to sustain the strength of the combatants. His proposal was carried by a majority of voices; and Critognatus, in his harangue, tells them that their ancestors had had recourse to the same kind of sustenance in the war with the Cimbri and Teutones. "One word more on cannibalism," says Voltaire, in a book which has had considerable success among the well-disposed, we find the following words to the same effect: "In Cromwell's time, a woman who kept a tallow-chandler's shop in Dublin, sold excellent candles, made of the fat of Englishmen. After some time, one of her customers complained that the candles were not so good. 'Sir,' said the woman, 'it is because we are short of Englishmen!'"

In 1030 commenced one of the most dreadful famines which has ever desolated France, and continued for three years. Men, so to say, went to the chase after men. They attacked one another, not for robbery, but simply to procure food. During this famine an inhabitant of Macon, who professed to lodge travellers, was accused of having killed and eaten no less than forty-eight persons, whose bones were found in his house. He was burnt alive by order of Othon, Count of Macon.† But what should we say of cannibalism permitted by the law of the land. According to the ancient law of Spain, "a father besieged in his lord's castle, and pressed by hunger, might eat his own son without incurring any reproach sooner than surrender without his lord's mandate". This law is referred to in *Las Siete Partidas*, a code compiled by Alfonso El Sabio, and will be found in the *Quarta Partida*, Tit. xvii, Ley. viii. I give a free translation of it from the original Spanish.

"A father impelled by hunger and poverty, and having no other resource may sell or pledge his sons to obtain food; and the reason is that he has no other means of preventing death. But there is still another reason—A father besieged in a castle which he holds of his lord and pressed by hunger, may eat his own son without incurring any reproach sooner than surrender the castle without his lord's order. And if a father may do this for his lord, *à fortiori* he may do it for himself. And this is another right which a father has over those of his sons which are under his control, and which right the mother does not possess. It must, however, be understood that a father has no right either to pledge or sell his son except as a *dernier ressort*."‡

* Partington, Brit. Cyc.

† See Migne, Encyc., Théol., t. i (Dict. des Sciences Pol. et Soc., 1), Paris, 1855.

‡ The original runs thus :—"Quezado seyendo el padre de grand hambre,

It is reported that during the siege of Calahorra by Afranius, the famine was so terrible the defenders obeyed to the letter this ancient law, preferring to eat their sons and wives rather than surrender. This famine has become proverbial in history under the name of *Hambre Calagurritana*.*

Mr. REDDIE said he was not aware what was the real drift of the paper, for it seemed to relate as much to modern Europe as to the savages of former times. He much questioned whether the people of this country, when in a savage state, did eat human flesh. Setting aside a few extreme cases, it would be found that cannibalism, even among the lowest races of mankind, was not so predominant as some people suppose. The fact was, that human flesh did not agree with them. The Fiji islanders, among whom the practice undoubtedly prevails to some extent, always go to the medicine-man after having eaten human flesh. It is unnatural for any creature to eat the flesh of its own kind; and the lower animals do not do so as a rule, but only in exceptional cases. There were, no doubt, exceptions to the rule in the days of Herodotus, as with us; but the accounts that had been given of androphagi, were mere stories or poetical exaggerations, and it was absurd to rest an anthropological discussion on the illusions of poetical fancy and the tales of old women. The oft-repeated statement of St. Jerome proved nothing. He most probably believed what he narrated, but he might have exaggerated what appeared to him to be the natural characteristics of a savage people. He hoped that Mr. Pritchard, and those who had had experience among people reputed to be addicted to cannibalism, would come forward, and say whether such cases were or were not exceptional.

Mr. PRITCHARD said that, during his residence in Fiji, he had had ample opportunity of observing what was the custom regarding the eating of human flesh, and he could say that they did not do so from liking it; but they ate their enemies out of revenge. He had often heard that they were taken ill afterwards, and it was understood among them that that was the general effect of eating human flesh.

e auiendo tan grand pobreza, que non se pudiesse acorrer dotra cosa; estonce puede vender, o empeñar sus fijos, porque aya de que comprar que coma. E la razon por que puede esto fazer, es esta: por que pues el padre non ha otro consejo, por que pueda estorcer de muerte el, nin el fijo, guisada cosa es, quel pueda vender, e acorrerse del precio: porque non muera el vno, nin el otro: E aun ay otra razon por que el padre podria esto fazer: ca segund el fuero leal de España, seyendo el padre cercado en algun Castillo que toniesse de Señor, si fuesse tan cuytado de fambre que non ouiesse al que comer, puede comer al fijo, sin mala estança, ante que diesse el Castillo sin mandado de su Señor. Onde, si esto puede fazer por el Señor, guisada cosa es, que lo puede fazer por si mismo. E este es otro derecho de poder que ha el padre sobre sus fijos, que son en su poder, el qual no ha la madre. Pero esto se puede fazer en tal razon, que todos entiendan manifestamente que assi es, quel padre non ha otro consejo, por que pueda estorcer de muerte, si non vendiere, a empeñare al fijo."

* Duró tanto tiempo el sitio de esta c., que sus vec., consumidas las provisiones, después de haberse alimentado algun tiempo con animales inmundos, e hijos y alimentarse con su carne por lo que fué proverbial el hambre Calagurritana.—Madoz, quoting Val. Max., lib. vii, c. vi; Sal. Hist., lib. iii, c. i.

They were also prevented from doing so by dread of being visited by the spirits of those whom they had eaten. There were some terrible stories told of the cannibalism of the Fiji islanders, and he believed they were facts; but the motives attributed to the natives were erroneous. One of the chiefs was said to have had pieces cut out of living men and eaten them, but it was intended as a warning to their enemies, and to terrify them. One of the chiefs admitted that he had often eaten parts of a great many men; but he said he did it, not because he liked it, but to frighten his enemies.

Dr. CAPLIN alluded to instances of cannibalism, when shipwrecked mariners were destitute of food and tossed up who should be killed and eaten. With respect to the taste of human flesh, he believed it was not different from that of beef; and he mentioned a horrid practical joke that had been played on a medical student, whose comrades cut out a piece from a body in the dissecting-room, and had it fried and served up to him as a beef-steak, which he ate, and thought very good.

Dr. BEIGEL observed that there were two questions to be considered; first, was there ever a time when cannibalism was practised in Europe; and secondly, whether there were single instances of it. The first point, he thought, had not been proved; such evidence as had been brought forward that evening having failed to establish it, and was not confirmed by history. With respect to the second question, he thought it was sufficiently proved. He mentioned a case in the course of his own practice in Silesia, of a young man who murdered his mother and ate her body. He had killed her in a quarrel; and when accused of the crime, he admitted it, but contended that she had no right to quarrel with him, and that he was justified in killing and eating her. Dr. Beigel said that he and other medical men examined the man, to ascertain whether he was insane; but his mind, in other respects, seemed to be in a perfectly healthy state, and he was executed. Cases such as that, however, did not prove that cannibalism was ever practised in Europe.

Dr. SEEMANN adverted to the practice of cannibalism as a medical agent. He said that mummies were extensively used as medicine until it became generally known that in most instances Europeans were using bituminised portions of their own countrymen instead of the contemporaries of Rameses the Great and other early Egyptian monarchs. There had been a regular trade in them as medicines, and great virtues were ascribed to mummy-flesh as a cure for several diseases. Cannibalism in another form was practised for medicinal purposes in Denmark and the north of Germany, where it was the custom to drink human blood for the cure of epilepsy. When criminals were executed, the blood was caught in a tumbler and drank. He had seen it done twenty years ago, and believed the practice was continued to the present day.

Mr. MACKENZIE observed, with reference to the use of human blood as a curative agent, that it might be attributed to the fact that in ancient times the practice was connected with the belief in the immortality of the soul. It was conceived that by transferring the

blood of those who were dying into living bodies, the latter obtained their lives. In the middle ages, persons sold their souls under certain bonds, and made their immortality an article of commerce.

The PRESIDENT brought the discussion to a close, by announcing that the next meeting would be the last, before the anniversary, at which new Fellows would be elected.

The meeting then adjourned.

DECEMBER 19TH, 1865.

JAMES HUNT, Esq., Ph.D., F.S.A., F.R.S.L., PRESIDENT, IN THE CHAIR.

THE minutes of the last meeting were read and confirmed.

The names of the following new members were announced :—John Bennett, Esq., F.R.A.S., 74, Cheapside, E.C.; the Rev. Maurice Philip Clifford, D.D., 47, Great Ormond Street, W.C.; Samuel Haraden, Esq., 32, St. John's Wood Park; W. H. Sherwood, Esq., M.R.C.S., Colonial Hospital, Bathurst, Gambia; John Underwood, Esq., M.D., George Street, Hastings.

The following presents were announced, and thanks were voted for the same :—On the motions of the human feet; on the loss of muscular power in the feet; the foot and its covering, by James Dowie, Esq., F.A.S.L. (the author). Malay wooden sandal, Cape Town; Damara sandal, eland skin sole and koodoo skin thongs; Bechuana sandal from Lake Ngami, sole of brindled gnou and thongs of koodoo; Cheeka or loin cloth, goat skin from Lake Ngami; Piece of giraffe skin as used by hunters for soles for velschoen; Bushmen's sticks for procuring fire by friction; Cap of palm leaf, Lower Zambezi (T. Baines, Esq.)

The names of the following gentlemen nominated as Auditors were announced :—George North, Esq.; F. L. Cotton, Esq.

The following papers were then read :—

On Two Australian Skulls. By H. G. ATKINSON, Esq., F.G.S., F.A.S.L.

Extract from a letter received by H. G. Atkinson, Esq., F.G.S., F.A.S.L.

"They are the skulls of natives of New South Wales, dug up on the estate of my brother-in-law, Captain Ogilvie, on the Hunter, and brought home and given to my father by Mr. Cunningham, the author of a work on that country. I remember his pointing out some indentations in them, and explaining that almost all the same skulls found of this kind had such on them, arising from their mode of

warfare, which consists in one standing quite still while his adversary strikes him on the head with the waddy, and he in turn striking the next blow, and so on, till one is either killed or disabled—a curious style—he who has the thickest head must be sure to be victor. Should Mr. Atkinson wish to compare them with others of the same family he will find one at the Museum of the Zoological Society. My brother-in-law sent over an entire skeleton of a young native girl as a present to Captain Marriott. It was looked on as a great natural curiosity on account of the skin being entire over the bones, and the hair which was long and black still attached to the skull.”

On the Idiotic Family of Downham, in Norfolk. By H. G. ATKINSON, Esq., F.G.S., F.A.S.L.

THE family are, or were, residents of Downham, Norfolk, and the account I received from Mr. Brown, a farmer in the neighbourhood, is as follows:—“Of this family there are three sisters and two brothers; their names are Susan, Mary, Maria, Thomas, and John Franklin. The parents kept a low public house. The moral character of the man was not good, he was a drunkard and of very inferior intellect; the woman was inoffensive and of weak intellect. The father died at 72; the mother at 50; of the children, John died at 47; Thomas at 40; the sisters are still living (1845), Susan, aged 60; Mary, 55; Maria, 50. Susan and Maria, like John, are not much more than brutes, except that they can talk. Mary can read a little and sew, and is willing to do as much as she is able; Susan and Maria could never be induced to do anything whatsoever. Of the brothers, Thomas was a curious character, was fond of being with horses, and of riding, and he could groom a horse well; was fond of soldiers, and of going to see the players, and he could imitate what he had seen; but you could not depend on the truth of a word he said, and he would pilfer whatever came in his way. John was also fond of seeing the players, but never attempting to imitate, and when you met him always said that he expected the players next week; but, with a careful person with him, would work at common labour tolerably well.”

I am sorry I could not get this satisfactorily identified, and I dare say now all concerned are dead; but the general fact of a whole family of idiots with manifestly defective brains is very striking. The parents, to take to and keep a public-house, and bring up these poor creatures, could not have been so very deficient of intellect, as intellect goes with suchlike—or, if so, the question of hereditary taint is the more important.

The thanks of the Society having been given to Mr. Atkinson for his papers,

Dr. THOMAS BALLARD observed that he had peculiar views as to the origin of idiocy, which he should be glad to bring before the notice of the Anthropological Society. The condition of idiocy was generally supposed to be hereditary, and to depend on some moral or physical defect of the parents; but he believed that opinion to be a mistake, and that idiocy depended on the blighting of the individual in early infancy. He had examined a great many idiots, and traced their history; and he had found the case of all to have been a common one. It was a condition of severe illness in early infancy; and, when circumstances occurred to ward off a fatal result, the individual, when he grew up, was idiotic. He had had one or two cases of infants who had recovered from such illness, which had been followed by idiocy. The nature of the illness was extreme diarrhoea, followed by convulsions and general emaciation. In such cases, the diarrhoea was caused by a fruitless effort to obtain food by sucking, a continuance of which leads in many instances to the destruction of the stomach. The fact of idiots generally having been exposed to this evil, is shewn in the frequency with which habits of constantly sucking the hand or the tongue are retained among them. It was not difficult to account for several members of the same family being idiotic from the same cause. In a family in London, several members of which were afflicted with idiocy, the effect had been traced to this cause. They were all accustomed to habits of continual sucking, and had been subjected to the same condition of illness in their infancy. The important practical point resulting from this view of the subject is, that idiocy may occur in any family, or may be prevented in all.

Dr. GIBB said the view of the subject of idiocy entertained by Dr. Ballard was now attracting the attention of the medical profession. In the Westminster Hospital, infants were observed who had the habit of sucking their thumbs, and it was considered of importance to stop it, as it was found to injure their health. Dr. Ballard's opinions could, indeed, be well borne out; they were well worthy of attention, and many medical men had become converts to his doctrine. It was explainable in this manner. The habit of sucking injured the system by inducing infants to swallow the secretions of the glands of the mouth, intended to be mixed with food, and, when swallowed without any, they produced injury to the digestive organs, and the constitutional powers became enfeebled.

The following paper was then read:—

On the Primary Anthropoid and Secondary Mute Origin of the European Races, versus the Theory of Migration from an External Source. By the Rev. DUNBAR I. HEATH, M.A., F.R.S.L., F.A.S.L.

THE object of the present paper is to state, to weigh, and to balance between the difficulties attendant on two opposite theories of the origin of the European races of men. One view originates them by natural descent out of European mutes, themselves the offspring of anthropoids; the other explains the first human peopling of Europe

by migration thereinto of other fully developed human speakers of articulate language from the east.

By using the word Europe, I do not mean to fix attention on any limits in geography. I do not mean that the arguments I am about to adduce will not apply to some larger area, so as even to include Asia Minor and Persia; and by using the word east I do it for brevity's sake only. I picture for my readers under these two names merely the present domiciles of the Aryan races and the spot whence formerly their languages were developed. Under the word mute, too, I include the utterer of inarticulate sounds.

Opinions change, and knowledge increases rapidly on the subjects about to be touched upon; so rapidly that I can hardly lay down any distinct aggregate of statements, and say, such is, at the present time, the generally received, or consentaneously accepted opinion. If, however, any one result seems to be unconsciously and yet generally held, it does seem to be that there was one particular sequence or order of events in the early history of mankind. Two things having been done by mankind, all writers on these subjects have, I believe, tacitly, and perhaps unconsciously, assumed that one of them was done before the other. Owing no doubt to traditionary views, the supposed sequence in man's earliest days has been, the speech of man first, and his locomotion or dispersion second. It being evidently possible for man to exist without articulate speech, and it being as evidently impossible for him to do so without multiplication and dispersion, I purpose to inquire whether that which is less necessary did not arise at a later period in man's history than that which is indispensable to him.

The views expressed as to the actual origin of man are no doubt various. Some writers disperse him from one centre, and some from many. Some explain all things by Adam and Eve, but even Homer sometimes nods, and many of these have to admit their land of Nod, where Cain found cities built and filled by human beings of the age of bronze and iron. Some indeed seem almost inclined to recognise something like an origin in Asia from Mongol red anthropoids previous to man's dispersion in the image of God into the Aryan and Semitic zones, but in all cases the difficult, special, and distinctive art of articulate speech is supposed to have been practised previous to the dispersion or dispersions; and the comparatively easy process of moving fifty miles down a river to a new fishing station is postponed, theoretically, till the moving being has perfected himself in the use of five hundred roots, expressive, each one, of a general distinct idea.

The name given to the young of the human race is infant, *i. e.*, the being that cannot talk. His earliest great operation in life is to take his food, his next to acquire the power of crawling on the earth's surface, and not for a long time does he speak, or pass from infancy. The human race, however, while in words we talk of its infancy, is supposed in fact to have first talked its five hundred roots, then to have gathered fruits, hunted prey, and tilled the ground, and then only, during vast periods of years, to have crawled its thousands of miles on the earth's surface, still with flint weapons only, and bone needles, wherewith the wool-covered elephant and cave lion of those old days should be kept in order.

Now, to propound in plain English that man is derived in lineal descent from apes would no doubt offend many prejudices, but we must give the best attention we are able to the facts bearing on the subject, and especially to that very wonderful phenomenon of language called "Grimm's law," and if, for instance, we find it impossible to imagine any origin for this law among European nations, except on the hypothesis that those nations, when reduced to slavery by the Aryans, were mutes, such a result would be a long step to what I have called anthropoid European origin. Even this, however, would lead us only half the distance between the two views of the origin of Europeans, which are the only ones usually discussed; for the idea of mute man is half way between that of anthropoids and fully developed speaking man. If, on still further consideration, we see reason to suppose that mute man, walking erect, on two organs only of locomotion, would be unable so far to overcome the powers of nature as to disperse himself over territory of all kinds, thousands of miles in length by thousands in breadth, and if apes, on the other hand, we know as a fact are found as actual early occupants of such territory, such a result would be such a further step in the direction of man's anthropoid origin as to finally reach that hypothesis.

There are in fact three tenable hypotheses as to man's dispersion rather than two. Man might have first filled Europe as speaking man. Man might have first filled Europe germinally and potentially as anthropoid ape. Or he might have filled Europe first as mute but as man—that is—with the *disadvantage* (I should think) of two organs only of locomotion instead of four. In this paper I admit an immigration of an Aryan speaking man into Europe in a state of development when animals had been domesticated and family life established. I also recognise, on the evidence supplied by geology, a time when anthropoid apes existed all over Europe. I do not admit that the Aryans filled Europe *first*. Geology, on the contrary, shows us, I believe, the anthropoid, well back in the tertiary epoch. Thirdly, I admit the beings of the drift, the bone caves, and the kitchen-middens. Now in plain English, or plain Aryan, I believe we none of us think the beings who made bone needles in the caves in the south of France were beings who called the needle *aiguille*. *Aiguille* is from *aculeus*; *aculeus* is a diminutive from *ac*; *ac* in Sanskrit is sharp—*acul*, then, is a little sharp thing, even as *equus* a horse is *ac-was* a sharp-goer. Many of us may say these beings were Laps or Finns. Now, if there be any novelty in my own view, it is this. I say very likely these beings were the bodily fathers and mothers of those who afterwards spoke Aryan or Lap, but at the time the Aryans or Laps came among them they were mutes. I only in this paper allude to, I do not dwell on, the difficulty of man's dispersion. I do dwell on the difficulty of man's learning articulate speech, and I say that the present phenomena of his speech in the Aryan zone show he was once mute. Doubtless if he was once mute over very wide areas, then the phenomena of his dispersion over those areas would tend to show he was once anthropoid.

The statement that a mankind speaking articulate speech dispersed

itself abroad so long ago as the age of the glacial drift, contains two prepositions, and it is twice as difficult to accept the two in consecutive combination as either of them separately. It is difficult to realise a mankind learning speech. It is also difficult to realise a mankind dispersing itself. By supposing a Europe filled with mutes, the first difficulty is much diminished, for it is much more probable some genius among the mutes would invent articulation somewhere in all Europe, than in any one narrow original seat of the race. Again, the theory of man's origin primarily from anthropoids, and, secondarily, from mutes actually on the soil of Europe, has the advantage of requiring no theory at all about any original anthropoid dispersion, for the existence of anthropoids in the post-tertiary geological epoch is no theory but a well known fact. Thus the principal difficulties as to man's dispersion so long ago as the glacial epoch seem after all self made. We fall into them only by denying that the known dispersion of anthropoids in Europe is potentially the dispersion of man. Let us suppose that mankind should have gradually begun to speak articulate language, at some one definite locality, only after man's previous mute appearance for many ages in one, or ten, or ten thousand localities. By this means our *à priori* difficulties will be reduced to a minimum.

The above few general observations will acquaint the reader with my stand-point. I do not, of course, in such a matter, deny the abstract possibility that the human contemporaries of extinct animals in the glacial epoch may have enjoyed the use of five hundred linguistic roots. The question is, however, one of probability as compared with other rival hypotheses, rather than one of possibility, *per se*. I find it extremely difficult to state what definite clear views have been expressed anywhere on this subject. I feel rather like the coachman who, when asked what was the average price he gave for his horses, said they differed so much there was no average. All that I can see clearly held and kept to is that man was taught language and locomotion at the same instant of time by the agency of forces purely hypothetical—so hypothetical that they are only supposed to have acted to produce speech and locomotion at that one instant, and never to have acted again on men from that day to this. Knowing nothing about such supposed events myself, I confine myself to the accepting and explaining known and knowable phenomena. It is known that anthropoids existed throughout Europe. It is knowable that they became mute men. It is knowable that these mutes grasped after articulation, and in a few spots attained to it. Those who did so at one particular spot I call Aryans, whether that spot was in Asia or in the submerged continent of Atlantis; and lastly, it is knowable that roving bands of Aryans seized upon the principal kitchen middens of the inarticulate speaking Europeans and then taught their roots, with the uses of them, to the European mutes, descendants of anthropoids now known to have been actually in long previous possession of the soil.

I proceed, therefore, to state the difficulties against the various hypotheses here mentioned, and first against that of European origin. There are but two that I know of. First, it has been stated that the

anthropoids, being brutes, could never have formed general ideas, nor with each idea associated its own corresponding root. The power of doing so is alleged by Max Müller to be distinctively and exclusively human. This is by far the heavier objection; but again, it may also be alleged, that the actual reception by all Europe of Aryan language proves the bodily inroad thereinto of Aryan races at the beginning. If the language had arisen by autochthonous developments, it is argued there could not possibly have been such radical connection between the Latin, Gothic, Welsh, etc., as now actually exists.

These two are the objections I shall consider against the view of autochthonous or anthropoid development. Against that of migration from the east, the most obvious and easy to appreciate is the difficulty of such migrations to savages previous to the glacial epoch; but another far stronger, when fathomed, is the existence of Grimm's famous law, the origin of which it is on my own view so easy, and on the common view so absolutely impossible to explain.

It will be as well perhaps to state here, before proceeding further, that I need take no notice at all of any historical or præ-historical action of Aryans or Turanians among themselves, whether by conquest, or amalgamation, or transition of one race into another. That certain Aryans, for instance, may once have come in bodily and founded the city of Marseilles on the shores of the Mediterranean may be quite true historically, but it has nothing whatever to do with the origin of the earlier races contemporaneous with extinct animals. Any known migration of a tribe will have its known results, and to these due attention should be given; but we are talking only of the very earliest original migration, if any, and to prove ten consecutive conquests when the conquerors had kings and horses, hounds and ships, and complex built-up words, will not go any length at all towards realising any original occupation in the period of chipped flint instruments for warfare, and bare roots for conversation.

No migration of people covering up their roots by affix or suffix, as all known Aryans did, in all known times, can explain Grimm's law, which has to do with the very roots themselves. The very act of speaking inflexioned language protected the roots themselves; and to show that a set of built-up words have changed their outward circumstances ten times over in a thousand years, is no step at all towards explaining the wonderful transfiguration of essential inward central roots, which has hitherto received no shadow of any explanation.

A deliberate opinion of Professor Max Müller on any subject in the science of language will command unfeigned respect and attention. This learned and popular author stands out firmly and solidly for an insurmountable unsurpassable separative distinction between man and brute. To those who accept his dictum on the subject (a most baseless and untenable dictum as I take it to be), it will be lost labour for me to explain even Grimm's law on a theory of anthropoid development. Taking, says he, the apes at their latest, and man at his earliest, the gulf between them cannot be bridged. Development of throat, or foot, or thigh, he may admit in ample quantity since the

tertiary epoch for the physical man to emerge from the physical anthropoid, but the power of conceiving *general ideas* he considers to be the peculiarly distinguishing *human power*. The anthropoid might indeed say *dar* when he *tears* a cocoa nut, but to say *dar* when he tears also anything else requires the power of conceiving the general idea of tearing, and this, says Max Müller, distinguishes humanity.

In former days, indeed, the "general ideas" supposed to distinguish humanity from brute, were not those somewhat vulgar ones of tearing, scattering, crossing, etc., etc., but the grand platonic ones, such as justice, beauty, order. These ideas Max Müller quite rightly and scientifically sweeps away as distinguishing us from brutes, because he proves a time when man could no more express them than a brute can. If man could once only say the dawn for what he afterwards called God, and clean and straight for what he afterwards called good and just, then we may no longer say man is essentially distinguished from brutes by being able to conceive and say such spiritual ideas as God, and good, and just, but by being able to express the physical general ideas of dawn, and clean, and straight. This is, no doubt, rather a step downward in our previously imagined dignity, and to Max Müller the great task seems to have fallen of popularising this immense concession to truth against the strongest prejudices.

The value of Max Müller's success in this task is such that it has hardly as yet been appreciated. Surely, however, he carries his adherents the greater part of the road with him by this theory towards the consistent and comprehensible statement that man was developed by natural selection from the previously existing anthropoids. The opposite view used to be that a being was created in a Persian garden much advanced beyond anthropoids in spiritual development, a being who had at least so much spirituality as to have a knowledge of God, with appreciations of right and wrong. The mind naturally falls into the idea that it would be even worth the supernatural interference of a deity to create such a being as this. But we now find an idea popularised with great power and success for the acceptance of the English public, which is certainly not such as this. The primæval, according to Max Müller, differs distinctively and radically indeed from the anthropoid; but how so? Not by his spiritual status, but by his power of forming and expressing five hundred purely physical general ideas, such as tearing, scattering, crossing, etc., etc.; not tearing, scattering, or crossing any one individual thing or person, as a brute might, but generally things and persons in general.

Now when I meditate upon this theory thus put forward by a man of talent and knowledge as a strong barrier against the opposite theory of development, I ask myself in the first place, am I, as a man, more closely sympathetic with a being who expresses a general physical idea, than with one who simply expresses particular ideas? If on a high tree I see a rook placed as sentinel, and every time he sees one particular danger he expresses it by the word *caw*, should I feel myself more closely connected with him in the classifications of natural history, if I could prove his word *caw* meant danger in general? Such a classification would seem to me quite untenable, and to me indeed Max Müller's

distinction seems quite imaginary. When a herd of wild elephants coming down to the water side at night, posts four leaders at the corners, and remains perfectly still for three hours, then, in one moment, on a signal from the leaders, rushes headlong into the water with the wildest gambols, and again, on another signal being given, subsides into perfect immobility, that seems to me quite as strong a proof that they have the general idea of danger, as any one's negative assertion on the other side could be, that they only have the idea of some particular danger. When a domesticated dog remains between his master's feet, he impresses me with the view that he has the general idea of security, while the half grown puppy, ready for any romps, has the idea of play in general with any body or any thing. So the dog taught cleanliness at home is cleanly in all houses, and the hunting dog seizing the disabled prey shakes it dead, then dropping it leaves it, and then returns to give it another shake, because a doubt has crossed his mind on the subject of the particular creature's death, but the general idea of death must, in my opinion, be in him, by which alone such actions can be explained.

So again when a fox-hunting dog foregoes his strongest native instincts by not hunting hares, and a hare-hunting dog contemptuously foregoes his low desires for attacking rats, I for my part recognise in these dogs a capability for carrying on the general business of dog life, but I do so only by perceiving they must have the general idea of game, and the general idea of vermin.

To the first argument, then, against the possibility of there having once existed a mute mankind I attach no weight. Quite the contrary. I find elephants and rooks able not only to form but to express general ideas; and if professor Max Müller be right in tracing human language back to the stage when nothing but a few general physical ideas were expressed, I see herein a great probability that certain mutes, inarticulate speakers, or anthropoids, known to have existed in tertiary epochs, acquired, in the struggle for existence, the habit of articulate expression. The next argument I said I would mention is the following:

The words used for the commonest objects are the same all over Europe. Such words, for instance, as wasp, fish, wolf, father, mother, one, two, three, etc., etc. This proves, it is said, that the preponderating masses of the populations must have poured into Europe from a common origin. A conquering army here and there could not have produced such a wide spread effect. Warlike or courtly words in such a case might have been introduced, but the identity of words used by all parties alike in daily life proves, it is said, a common external origin of the masses.

Now to this I answer, no doubt it would go far to prove it, unless those masses were mutes when the linguistic influences in question were brought to bear on them. The Normans I grant could not destroy the Saxon names of live animals, nor the Saxons eradicate the British names of places. I grant that languages are not easily destroyed, except by annihilating the speakers. The traces of Welsh, the traces of Latin, the traces of Saxon, have not been destroyed in

England. But this I say is because articulate speech existed previous to Latin or Norman conquests. If the Latins had been mutes it would be absurd to seek for traces of Latin in this island, and if the natives that lost the battle of Hastings had been mute, I argue that a hundred Normans winning that battle would have sufficed to educate all England into saying a quater-jambéd mutton instead of a four-legged sheep.

Suppose now that from finding certain bones and implements in England previous to the battle of Hastings, we had only the same evidence that human beings existed in England previous to that battle, as we have that they existed in Europe previous to Aryan linguistic influence. Suppose we no more knew whether Hastings was won by ten or by 50,000 men, than we know whether Europe was Aryanised by ten or by 50,000 Aryans. Suppose, finally, the words in England for wasp, fish, wolf, father, mother, one, two, three, etc., etc., were Norman, then I say one of two things would follow. Either the 10 or 50,000 Normans, annihilated the previous inhabitants, or those inhabitants were mutes. As applied to Europe and the Aryans, the former of these two hypotheses has in general been accepted; but it is to the substitution of the latter, as an alternative, that I am led in this paper by a calm consideration of the difficulties on either side of the question. For myself, then, progressing in my designs of weighing the arguments for and against mute origin, as compared with migration of articulate speaking races from the East, I decide that I see nothing overwhelmingly strong as yet against our origin from inarticulates or mutes, and on the contrary I am more and more led to lay down the following recapitulations.

Europe is known to have been peopled over vast areas during vast periods. The inhabitants, therefore, must either have been mutes, or during that vast period and over that vast area they must have developed a large number of dialects or languages. Their population, too, must have been considerable. Now the greater their population, their dispersion, and their number of languages, the greater would have been the difficulty of the Aryan immigrants, in introducing the common words of daily life; but if the Europeans existed previous to the Aryan linguistic influences in a mute or anthropoid condition, no such difficulty would have occurred, and in fact the commonest words of daily life would have had a better chance of being alike throughout Europe, than words not quite so common.

The Lap or Finn difficulty may also be well explained by the theory of the original mute condition of the Europeans. If the Laps once covered all Europe, their language would not have disappeared so completely, but if the original mutes were taught language from two sources, one Lap and the other Aryan, the existing phenomena would naturally have arisen.

My argument from Grimm's law for the former mute state of man in Europe may now be prefaced by a few observations on the organs of speech.

Suppose then, a mute and a speaking man be each about to learn a language from a foreign teacher. The organs of speech in either are

the immoveable palate (including the teeth), and the moveable throat, tongue, and lips. Now it will appear, upon a little consideration, that a mute would make use of his palate much in the same way as a speaking man, simply because there is hardly any way in which his palate could fail him. At any rate, his palate is surely a less difficult organ to manage, than his moveable tongue or throat. The palate in fact, being a mere passive recipient of certain pressures applied by the tongue and breath, it would seem that any error of articulation must be in these actually active organs, which are likely enough to fail a beginner, and in the nature of things would fail a being unpractised in the use of them for the niceties of articulation.

Now, with the exception of a few "dialectic differences," it appears to be exactly in the use of the palate that the Aryan speeches show their similitude, and in the action of the tongue and throat are found to lie the distinctive differences. In those organs of speech which mutes can use at once, without practice, the Aryan languages are alike, and in those organs requiring practice, those nations differ.

By a root being common to two languages, we appear to mean that the same parts of the palate are used in speaking, the words having some traceable community of meaning, but we do not mean that the same pressure of tongue, or the same force of breath is used. Thus *pater* and *father* are said to be the same word, because with a common meaning no part of the palate at all is used in the first syllables *pa* and *fa*, and in the second syllables *ter* and *ther*, the part close to the teeth is used in either case. Each syllable, however, of the word *father* begins with what is called an aspirate, and thus the difference of the words lies in the use of the throat or breath not of the palate.

On each part of the palate we distinguish two amounts of pressure exerted by the tongue, and each of these amounts may or may not be combined with a force of breath emitted from the throat. Thus *t*, *d*, *th*, and *dz* (or *z*) might all be spoken articulately with a vowel, though a small portion only of the palate close to the teeth might exist in the speaker.

Now in a very large amount of words, expressing the very commonest objects, it appears the same parts of the palate are used all over Europe. The exceptions to this rule are classed under the name of "dialectal differences" as opposed to "phonetic growth or decay." I do not notice dialectal differences, because my argument for the former mute condition of the populations enslaved by the Aryans does not require that the palates of the conquerors were afterwards always used aright. Suffice it that the pressure of the tongue and the force used by the throat, vary in a very wonderful way in Europe, as is stated by what is called Grimm's law.

It is very important to observe that this law is not a law about nations which *could not* use their throat and tongue aright, and therefore fell into errors owing to a defect of organisation. The French *cannot* say the word *three*, and do not; but the Germans, who say *drei*, and the English who say *three*, *can* each pronounce the word with a *t* if they please. If there were reason to suppose that the Goths once

could not say *drei* or *tres* from inability, and the high Germans could not say *three* or *tres* from the same cause, then Grimm's law would require no further explanation, than that of simply stating the facts. The inability, I mean, would rather have to be accounted for than the law itself. Inability to speak alike among the Aryans can, however, only be pleaded in a very few exceptional cases. That they use their palates alike, but not their throats and tongues, must have arisen from some very different reason.

Grimm's law states, in the first place, that if two Aryan languages have any one root in common, that is, if the same parts of the palate are used to express any root, and if any difference of force of tongue or throat is used, that same difference is found universally in every other root common to the two languages. Thus, if *tres* in Latin is three in Gothic, by using more breath, and *drei* in high German, by using more tongue force, then in every other root common to these three languages the same difference must occur. For instance, *torreo* in Latin is connected with thirst in Gothic, and *durst* in German. *Tu* in Latin, *thou* in English, and *du* in German, *tunc* in Latin, then in English, *denn* in German, etc., etc.

This law, so far as I have here stated it, is of itself sufficiently surprising when we cannot admit any want of ability in these three nations to pronounce their common words alike. In order to prove however want of will, in order to prove in fact an ancient conspiracy or determination among the aristocracy of these nations, to admit wrong speech (among their slaves probably) where right might have been had, we must find more than this one instance of these methodical sets of charges.

Take, then, the case where the Goths (or English Germans) used the least possible force of either breath or tongue. Instead of taking such a word as *three* where there was a small force of tongue, but a breath spent with it, take the word *tooth* which begins with a simple *t*. Here the Latins, Kelts, etc., use more force, saying *dens*, *dant*, and added to this greater tongue-force, the high Germans use a strong breath as well, saying *dsahn* or *zahn*. So English *ten*, Latin, Greek, Welsh, *decem*, *δεκα*, *deg*; German *zehn*. English, to *tear*; Greek, *δερνω*; German, *zerren*, etc., etc.

I have given here but two sets of changes. The aggregate of these with many similar ones, constitutes Grimm's law, for the origin of which no explanation has I believe hitherto been suggested. I note indeed Max Müller's statements how certain tribes "spent" the letter *t*, and "were driven to adopt" *z*. The "pressure was felt once more" and "they had to employ" *th*. "They had really robbed Peter to pay Paul." "They fixed *d* in their national utterance as *t*." If the professor has a distinct theory as to how this very wonderful set of changes took place so methodically and universally, I have failed to understand it.

Now in this law I see an argument in favour of the origin of Europeans from the aboriginal mutes enslaved by the Aryans. That the aboriginals were enslaved by the Aryans is I suppose a common view, for few would suppose the mighty Aryans to have been themselves

the cave contemporaries of mammoths and lions. Few, I say, consider the makers of the bone needles in the drift period to have been Aryans. Were they then mutes or not? Did they when enslaved by Aryans receive the power of saying "a little sharp thing," as they now say it? If they used articulate speech and were not Aryans, how came the words for needle and a thousand other words of daily life to be so completely supplanted by Aryan words? Now the Aryans somehow or other have arrived at a common use of the palate, but not of the throat or tongue, and the variations in the use of throat and tongue follow fixed laws.

I explain Grimm's law as follows:

The palate is a fixed organ. Teach a mute to press his tongue against the different parts of his palate. So far as the mere palate goes, no control of any muscle by the will is requisite. The difficulty lies after all in the moveable tongue and strength of breath. Now if the aboriginal to whom the Aryan teacher or conqueror comes should be a speaking man, practised in these organs, and the said Aryan should wish him to say *bad*, I see no reason why the man should not say so, for we must remember the facts show there was no organic want of ability, in the case we are discussing. If, however, the aboriginal be a mute, he would very likely say *pat*, but in neither case does there seem to me any probability of his saying *kag*, or of the Aryan being satisfied for his own purposes, with his saying so. The teacher, however, who heard the mute say *pat* for *bad*, would in the first place understand him, he would also very likely be amused, and would also probably have no great objection to his slaves talking slavishly, as distinguished from his own aristocratic Aryan self. He would, of course, save himself all unnecessary trouble. Hence he would consistently allow him and in fact encourage him, to say also *pet* for *bad*, and *pit* for *bid*. It will, of course be obvious that, unless actively discouraged, the mute who once said *pat* for *bad*, would *naturally* say *pet*, and *pit*. This natural falling into the wrong use of the tongue on the right part of the palate would *only* be *natural* on the hypothesis I have suggested. If 50 Aryans seized a kitchen-midden with 200 mutes the events would follow. Nothing of the sort could take place between Normans and Saxons, nor between existing languages, one of which is supposed to have disappeared after several generations, as Swedish will in the United States. The more I meditate on this hypothesis, the more I can realise it, and Grimm's law is now explained, for exactly as *pat*, *pet*, and *pit*, are in one place supposed to have been articulated, so another teacher in another part of Europe would find his slaves saying *vath*, *veth*, *vith*; or *fadh*, *fedh*, *fidh*, but this would take place regularly only on the hypothesis of mute pupils, and any such variation once made by the pupil's unpractised tongue, or throat, must for comprehensibility's sake have been carried out consistently into every word acquired from the teacher's language, and these words would be exclusively the common ones of daily life. In this way alone no confusion would arise, and in this way I connect Grimm's law with the original mute condition of Man in Europe.

It will be seen by those acquainted with Grimm's wonderful law

that for simplification's sake I have most imperfectly described it. In order to give a little better idea of the facts, I will now, in imagination and in conclusion, invade the domains of those who advocate the origin of Europeans from one centre. I will suppose myself to be at the original Aryan home itself. What do I find there?—an intelligent community, well able at any rate to do two very important things, viz., to talk, and to increase their numbers. Being pressed for room, they send out in the course of time three colonies: one for Cashmere we will suppose, one for Khiva, and one for Orenburg, south, west, and north-west. We will suppose further that these universal Aryan fathers possess 100 roots beginning with *p*, 100 beginning with *t*, and 100 with *k*; also 100 with more breath in pronouncing each of these, and 100 with more tongue force, making thus altogether 900 roots. And now behold the wonder. In the course of further ages, we visit the supposed descendants of these men who, by the hypothesis were from the beginning fully able to distinguish these nine uses of their organs. We find the alleged descendants still fully able to distinguish them, but to every one of the 300 *p*, *t*, *k* roots, one set of alleged descendants have added tongue force, another set have kept the same tongue force but have added breath.

The facts are that tres, θυγατηρ, and dens, and such words, among one set, have become three, daughter, and tooth, and such words among another; and drei, tochter, and zahn in another; and that similar changes, without I believe a single exception to the rule, occur wherever the common roots have been preserved. The question, then, is: How, why, or when, could, or should the men of the supposed Khiva, Cashmere, and Orenburg have done all this? For my part I can only conceive it happening by these colonists finding at these imaginary places or elsewhere a set of mutes numerically much predominating over them, and the *modus operandi* would be then, perhaps, as follows:—

Kitchen-middens, or settlements of the mutes, would be seized upon at different times and places by certain speaking tribes. Among the mutes there was a perception of the advantage of speech as of any new metal or food. Among the Aryans a perception quite as strong no doubt existed as to the advantage of enslaving the mutes for the sake of their labour. Slavery elevated the inferior races as usual. Amalgamation probably took place. Language was correctly acquired so far as the use of the fixed organs of speech co-operated, but errors were tolerated, provided such *rules* of error were adhered to as would allow a comprehension of the slave jargon by the masters. These errors, if established among previous mutes, would be naturally in the use of the tongue and throat. The fact that the Sanskrit is the most methodical of known Aryan languages, tends to show that the instruction of the mutes took place not long before the formation of Sanskrit, as the attention of the Aryan Pundits would be powerfully drawn to the subject of distinctions of voice by so mighty a task as had fallen to the lot of their people.

The subject of the development of these supposed mutes out of red anthropoids may be kept for another time, as surely that of mutes into articulately speaking men is enough for the occasion.

Mr. L. O. PIKE said, he hoped he was free from those prejudices of which Mr. Heath had spoken, and he would leave it for other gentlemen to object, on sentimental grounds, to an anthropoid mute considered as a gorilla and a grandfather, while they welcomed the negro as a man and a brother. He, like the author of the paper, was of opinion that the brutes had general ideas, if men had them. He had supported that view by precisely similar arguments directed against the same opponent, Mr. Max Müller, in a paper read before the same Society, less than two years ago. But he could not, therefore, admit that there was evidence, from language, of the ape-origin of European races. He would ask Mr. Heath whether he supposed that the negroes of Jamaica, who spoke a language in which no trace of African was to be found, were descended from anthropoid mutes upon whom the English had imposed their language? Moreover, he did not admit that Mr. Heath's statement of Grimm's law was correct. In the languages to which that law applied, viz.: firstly, the Sanscrit, Greek, and Latin; secondly, the Gothic; thirdly, the old High German; there was no sign of difficulty in pronouncing any of the sounds to which the law referred, with the exception of the *th* in the High German. With that single exception, none of the sounds were, according to Grimm, absent from any of the languages. He thought the importance of Grimm's law had been greatly overrated; it was but a rule, to which there were many exceptions. Of so little importance, indeed, was this so-called law, that among the same people—the Germans, for instance—there was a confusion in the sounds of certain letters. As an example, he referred to Lewes's *Life of Goethe*, in which evidence was given that *p* was confounded with *b*, and *t* with *d*, by actors on the stage. He then referred to the Welsh language, in which a word is so modified by the word preceding it, that it goes through the whole round of changes, to which Grimm's law refers, in the mouth of the same speaker.

Dr. SEEMANN observed that the confusion in the sound of letters alluded to, was observable only in one part of Germany, viz. Saxony. He said that there are some Spaniards who cannot perceive the distinction in the sound of *b* and *v*.

Mr. REDDIE said he should be sorry, after having been told how we had risen from being mute to be speaking men, to remain mute on that occasion. He agreed with Mr. Pike in disputing Grimm's law, and it appeared that Mr. Max Müller disputed it also; if Grimm's law was as the author of the paper stated, he had treated them with a *reductio ad absurdum*. Mr. Reddie proceeded to point out the inconsistency into which philologists were driven, who accepted that law. On the question whether man was derived from apes, he hoped to have some more general issue raised than had now been brought forward; and he trusted the Anthropological Society would not accept the author's views merely on the ground that there were difficulties in accounting for the origin of language. One thing was clear, that there has been some "confusion of language" (or *lip*) in the world, and it was a hard puzzle to discover how the confusion arose, if we discard the old traditional account.

Dr. CHARNOCK objected to the use of the term Aryan, as having no

more definite meaning than those of Caucasian or Japhetic, which it replaced. The district marked out included several nations, speaking languages of different construction. With regard to the supposed loss of words in the Lappish and Finnish, he had not discovered such loss. We had ample lexicons of those languages; and very many of their words were to be found in the Esthonian, the Hungarian, and also in the dialects of the Ostiaks, the Tschuvashes, the Vogules, the Votiaks, the Permians, the Syriaens, and other tribes inhabiting Siberia and the banks of the Volga. With regard to the interchange of radicals, he observed that both the Spaniards and the Gascons confounded the letters *v* and *b*, which gave rise to Scaliger's pleasantry on the latter people, "*Felices populi quibus bibere est vivere.*"

Dr. BEIGEL considered the expression of a mute man a contradiction in terms, for a man cannot be a mute. The organs of the mouth, which had been mentioned as most essential to speech, were not so. The teeth, the tongue, and the palate, were said by the author of the paper to be the most important; but that opinion was erroneous, for the larynx and the ear were the principal organs required to produce articulate sounds. Those who could not speak were dumb, not because the organs of the mouth were defective, but because they could not hear. A man without teeth could speak well; he could also speak without a palate, and even without a tongue. He had lately known an instance of the kind; and there were five or six similar instances on record. The reason why brutes cannot speak is, not because they want the necessary organs of the mouth, but because they are not possessed of reason, are unable to form general ideas, and cannot sufficiently distinguish different tones.

Professor MAX MÜLLER, having been called on by the President, said he should have preferred to have remained mute, and having listened only to the latter half of the Rev. Dunbar Heath's paper, he should have to confine his remarks to those parts of the paper which referred to Grimm's law. If that law were as represented by the author, then indeed the explanation offered might have deserved consideration; but he denied that Grimm's law had been correctly stated. There was no evidence of any difficulty having been experienced in any one of the Aryan languages with regard to the pronunciation of the *tenuis*, or the *aspirate*, or the *media* of the three principal classes of consonants, guttural, dental, labial. The nine consonants which are alone affected by Grimm's law, and which constitute the foundation of Aryan speech, are pronounced without difficulty by the Goths, as well as by the Greeks, Romans, and Hindoos. What has to be explained is, why the Goth pronounces an aspirate where the Greek pronounces a *tenuis*, a *media* where the Greek pronounces an aspirate, and a *tenuis* where the Greek pronounces a *media*. He did not consider there was anything gained by supposing the original inhabitants of a country to have been mute, and to have experienced any difficulty in imitating the sounds of their supposed teachers, in order to explain the existing variations in the pronunciation of letters, and the changes that have been pointed out by Grimm in words common to Greek, Gothic, and High German.

The Rev. DUNBAR I. HEATH replied to the remarks that had been made on his paper. With regard to the objections of Professor Max

Müller, he must confess he could not understand them. He (Professor Max Müller) had said that he had inadequately described Grimm's law, and admitted that, if the law were as he had described it, his theory might be worth considering. It was for simplicity's sake alone that (as he had said in his paper) he had only partially described the wonderful law. But the Professor had said nothing at all about the origin of the law. With regard to what had been said about the changes of the sounds of words by people who could speak as well as by mutes, a word here and there might be changed, but not in accordance with such a law. The law seemed to him to show at least a functional, if not an organic, incapacity among those who originated it; but such an incapacity did not exist among speaking men. He could not conceive how a people migrating from a central point could be able, when disseminated, to alter so methodically, and misuse the nine sounds which were said to be the foundation of Aryan language; and it was admitted by the Professor that an explanation was required. The rev. gentleman quoted a passage from the work of Professor Max Müller, which he conceived supported his view of the case.

Professor MAX MÜLLER said it was impossible to enter fully into the subject of the origin of language on that occasion. All he wished to say in answer to the remarks of Mr. Heath was, that the explanation proposed was not sufficient to account for the existing differences. If they could be explained in that way, he would be glad to accept the theory. Certain mutes were said to have been conquered by a speaking people, and when they heard one sound to have pronounced another. Why they should have done so, we were not told. It was not pretended that they could not pronounce either *k*, *kh*, or *g*. Then, why should they have said *kh* when they heard *k*, and *g* when they heard *kh*, and *k* when they heard *g*? The supposition of mutes was not adequate to account for such a systematic change; nor was so elaborate an hypothesis required. Persons possessing a language of their own, were quite as liable to mispronounce a new language as mutes. There could be no doubt that the interchange of sounds was a great puzzle, and no satisfactory explanation of it had yet been given. What he attempted to show in the passage quoted by Mr. Heath from the fifth lecture in the second series of his Lectures was, that, among civilised as well as among barbarous peoples, we constantly find the same language spoken with great phonetic variations. In the dialects of Greece, as well as of some of the Polynesian and Melanesian islands, there was found something analogous to what Grimm pointed out in Greek, Gothic, and High German; various tribes speaking the same language, yet one tribe pronouncing one letter, and another tribe another. That showed that, in considering this subject, we should not take our stand on any one language, but should learn to look on national or literary languages as the outcome of an infinite variety of dialects. Language was not revealed, ready made, uniform, perfect, classical. Language was in a constant state of growth, in a constant process of what is now called "natural selection." Whatever was possible in any one of the original dialects, might become fixed and generalised in national and literary languages. Writing, which was some-

thing purely accidental to language, nay, even oral tradition, checked the natural growth of spoken dialects; and, in order fully to understand many of the phonetic peculiarities of literary or so-called classical languages, we ought to learn what language is in its natural dialectic state. Language, as such, was never meant to be written; and, in the natural history of speech, literary languages had been rightly characterised as *monstra*, as *monstra* by their very regularity and false analogy. If we could show incipient traces of changes analogous to those of Grimm's law, this was probably the utmost we could hope to effect in illustration, if not in explanation, of that law. We need not see anything miraculous in these changes, for they are to be met with among many people at the present day. In Ireland, what one person called *pig*, another called *phig*; and that was the first stage of Grimm's law. Similar changes were found in Africa, and in the Polynesian islands; but they are sporadic there, while they are systematic in the Aryan languages.

The Rev. DUNBAR I. HEATH again shortly defended his position, that the changes in language could be better explained on the supposition that the original inhabitants of conquered countries were mutes, than they could be if it were assumed that they had a language of their own.

Mr. PRITCHARD said that among the Polynesian islanders there are instances where the inhabitants of groups not many hundred miles apart, cannot, though speaking the same language, pronounce certain sounds which distinguish their various dialects. The Tahitians cannot, by any effort or practice, pronounce the *s* of the Samoans, nor even their nasal *ng*. In the language of the Fijians there are sounds which the fair-skinned Polynesians cannot possibly utter—notably *th* (expressed in the Fijian alphabet by the sign *c*). It is simply impossible for a Samoan, Tongan, or Tahitian to say *s*, as in the word *caucau*=(*thau-thau*).

The PRESIDENT said he felt sure they would all join in thanking Professor Max Müller for having joined in the discussion.

Mr. BOLLAERT then read a paper on the "Maya Alphabet," which will appear in the *Memoirs* of the Society.

The Rev. DUNBAR I. HEATH remarked on the resemblance of the negative sign in the alphabet to that of the Egyptians, which was very graphic; the negative being expressed by two extended arms indicating dissent.

Professor MAX MÜLLER, on being asked by Mr. Bollaert to express his opinion, replied that the subject was quite new to him, but that he thought that Aubin's researches had clearly shown the transition of hieroglyphic into phonetic signs in Mexico. He thought, therefore, that behind these apparently phonetic signs of the Maya alphabet, there would probably be discovered hieroglyphic signs, and that the subject was well worthy of Mr. Bollaert's continued researches.

The PRESIDENT announced that the anniversary meeting of the Society would be held on the 2nd of January next; and to that day the meeting was adjourned.

GENERAL ANNIVERSARY MEETING.

JANUARY 3RD, 1866.

JAMES HUNT, Esq., Ph.D., F.S.A., PRESIDENT, IN THE CHAIR.

THE minutes of the previous meeting were read and confirmed.

The TREASURER submitted the following account, which had been passed by the auditors.

Income and Expenditure for 1865.

Dr.				Cr.			
1865. Dec. 30.	£	s.	d.	1865. Jan. 1.	£	s.	d.
To balances transferred:				By balance from 1864 ...	56	3	7
Gorilla.....	32	6	0	By balances transferred:			
Furniture	68	11	0	Subscriptions 1863.....	18	14	0
Salaries, rent, and assist-				„ 1864.....	79	5	6
ance to Secretaries ...	205	2	9	„ 1865.....	1000	15	11
Postages and advertise-				„ 1866.....	37	14	0
ments	180	12	4	Life compositions	245	14	0
Stationery	55	7	0	Donations (library and			
Office, reporting, & Brit.				museum)	92	15	0
Association expenses..	151	10	1	Sales of publications:			
Library and museum ...	47	7	0	Waitz (Longman) ...	32	2	9
Miscellaneous printing.	138	8	5	Broca (ditto)	7	11	9
Anthro. Rev. & Journal.	331	6	0	Vogt (ditto)	21	8	6
Memoirs, vol. i	19	19	4	Sundries (office)	19	14	1
Pouchet	89	9	10				
Blumenbach	147	15	3				
Gastaldi	3	13	0				
Dinner to Capt. Burton	32	1	0				
Zetland expedition	25	0	0				
Gaboon ditto (grant to							
Mr. Walker)	25	0	0				
Balance carried forward...	56	4	11				
	£1,611	14	1		£1,611	14	1

1866. Jan. 1.

By balance brought forward £56 4 11

RICHARD S. CHARNOCK, *Treasurer.*

Audited and found correct.

GEORGE NORTH, }
 F. L. COTTON, } *Auditors.*

London, Jan. 1, 1866.

REPORT OF COUNCIL.

The Council of the Anthropological Society of London have great pleasure in reporting to the Fellows the increased prosperity which has attended the Society during the third year of its existence.

The unprecedented number of new elections during 1864, has been far exceeded in the present year, while the resignations have been relatively fewer; and the Council can state with the highest gratification that the hopes they ventured to express in their last report have been amply realised. The Council trust that the details of the present report will give every reason to expect that the year 1866 will be signalised by still greater success.

Meetings.—During the year 1865, twelve ordinary meetings of the Society have been held, at which twenty-nine papers have been read, consisting of the following.

E. Sellon, Esq. On the Linga Puja, or Phallic Worship of India.

W. T. Pritchard, Esq., F.A.S.L., F.R.G.S. Notes on Certain Anthropological Matters connected with the South Sea Islanders.

E. Lund, Esq. On the Discovery of Syphilis in a Monkey.

G. D. Gibb, Esq., M.D., M.A., F.A.S.L. On the Essential Points of Difference between the Larynx of the Negro and that of the White Man.

T. B. Peacock, Esq., M.D., L.R.C.P. On a Skull exhumed in Bedfordshire.

T. Bendyshe, Esq., M.A., V.P.A.S.L. On the History of Anthropology.

K. R. H. Mackenzie, Esq., F.S.A., F.A.S.L. Notes on Fetich Worship in Egypt.

Dr. Shortt, F.A.S.L. On the Leaf-wearing Tribes of India.

Dr. Shortt, F.A.S.L. On some rude Tribes, the supposed Aborigines of Southern India.

M. Arminius Vambéry. On the Hadgis and Dervishes of Central Asia.

J. Hutchinson, Esq. On Human Remains from Cowley.

W. T. Pritchard, Esq., F.A.S.L., F.R.G.S. On the Physical and Psychological Characters of the Viti Islanders.

J. Anderson, Esq. Notes on Human Remains from Wick; with Note on the Human Skull, by C. Carter Blake, Esq., F.G.S., F.A.S.L.

T. Bendyshe, Esq., M.A., V.P.A.S.L. On the Anthropology of Linnæus.

W. Winwood Reade, Esq., F.A.S.L., F.R.G.S. On the Efforts of Missionaries amongst Savages.

H. Burnard Owen, Esq., F.R.S.L., F.A.S.L., F.R.G.S. On Missionary Successes and Negro Converts.

The Lord Bishop of Natal. On Missionary Efforts amongst Savages.

Dr. Berthold Seemann, F.L.S., V.P.A.S.L. On the Anthropology of Western Esquimaux Land, and on the Desirability of further Arctic Research.

C. Carter Blake, Esq., F.G.S., F.A.S.L. Report on the Anthropological Papers read at the Birmingham Meeting of the British Association.

Dr. James Hunt, F.S.A., Pres.A.S.L. On the Archaic Anthropology of the Zetland Isles.

Ralph Tate, Esq., F.G.S., F.A.S.L. Report on Diggings in the Islands of Unst and Yell. (Made on behalf of the Earl of Zetland, K.T., and the Anthropological Society of London.)

John Beddoe, Esq., M.D., M.A., F.A.S.L. On the Evidence of Phenomena in the West of England to the Permanence of Anthropological Types.

Dr. R. S. Charnock, F.S.A., F.R.G.S., Treas.A.S.L. On Cannibalism in Europe.

Rev. Dunbar I. Heath, M.A., F.R.S.L., F.A.S.L. On the Anthro-

poind Origin of the European Races, versus the Theory of Migration from the East.

H. G. Atkinson, Esq., F.G.S., F.A.S.L. On Two Australian Skulls.

H. G. Atkinson, Esq., F.G.S., F.A.S.L. On the Idiotic Family of Downham, Norfolk.

W. Bollaert, Esq., Hon. Sec. A.S.L. On the Maya Alphabet.

Finances.—The past year has been one of very considerable expense to the Society. Many items of payments will not occur again, and altogether, the expenditure, according to the estimate of expenses proposed by the zealous Treasurer of the Society, will not be so great as that of last year. The Council are glad, however, to state that economy will be exercised in what may be denominated the extraordinary expenses; and that the printing of translations, memoirs, etc., and the supply of the Journal will go on as before.

It has been thought advisable that the accounts of the Society should be carefully examined since its commencement; and we are happy to state that an efficient system of practical bookkeeping has been introduced. The Council desire to acknowledge the liberal and voluntary assistance they have received on this occasion from Mr. J. W. Conrad Cox, a member of their body, as well as to return their best thanks to their present active Treasurer, Dr. Charnock, for the able manner in which the interests of economy have been advocated by him.

The Council regret very much to see that some defaulters remain on their books; and although the number is comparatively small, they trust that the laxity which has hitherto prevailed, as regards the carrying out of the 15th and 16th rules of the Society, will not be permitted during the year 1866. They feel that in a matter of this description, the good faith of those members who have received during the past year works of greater pecuniary value than the amount of their subscriptions, ought to be the best security for the prosperous state of the Society's finances.

Salaried Officer.—The great increase in number of members, and other features of our success during the past year, are in no small degree due to the able services of our Curator, Librarian, and Assistant-Secretary, Mr. Carter Blake. The present position of the Society has not been gained without much labour and energy on the part of the various officers.

So much success having been attained, your Council have considered how this prosperity may be secured, and extended in future; and they have unanimously agreed that the time has come when it is both desirable and necessary to appoint a second paid officer, not only to help the advancement of the objects of the Society, but also to assist in the work which has already grown too heavy for one person to manage. The duties of the Assistant-Secretary are many and exceedingly varied, and so capable of useful extension as to afford ample work for two secretaries. To cite one instance, for example, the correspondence with the various local Secretaries alone might well most usefully occupy the whole time of one secretary. Two officers have been

appointed: an Assistant-Secretary, and a Curator and Librarian; their several duties being defined below.

The duties of the Assistant-Secretary shall consist,

1. In attendance at the Society's rooms from 10 A.M. to 5 P.M.
2. In the general management of the duties of secretary under the direction of the officers and Council.
3. In attendance at the general and ordinary meetings of the Society, and in the preparation of the work connected with the same.
4. It will be the duty of the Assistant-Secretary to keep complete records of all the business connected with the Society, to keep the accounts of the Society, and from time to time make suggestions for the better management of the Society's affairs.
5. It will also be the duty of the Assistant-Secretary to invite gentlemen to attend the meetings, who may be specially qualified to speak on the various subjects brought before the Society at their ordinary meetings.
6. He shall keep a list of gentlemen whom it may be considered desirable to invite to join the Society, and a list of those who are likely to contribute papers to the Society. He shall invite gentlemen returning from foreign travels to communicate their observations to the Society.

7. In the absence of the Curator and Librarian, the Assistant-Secretary shall perform his duties.

8. In addition to the foregoing, the Assistant-Secretary will be expected to perform such other duties as he may be from time to time called upon to do by the officers and Council.

9. The Assistant-Secretary shall be entitled to six weeks vacation annually, taken at such time or times as may be authorised by the officers of the Society.

The duties of the Curator and Librarian shall consist,

1. In the general management of the Society's Museum and Library.
2. In drawing up reports from time to time for their development or better management.

3. As Curator, it shall be his duty to write to all foreign travellers to ask for specimens suitable for the Society's Museum, and to conduct a correspondence with foreign societies and anthropologists in all parts of the world with the same object.

4. As Librarian, it shall also be his duty to keep a complete record of every book published on anthropology.

5. It shall be the duty of the Librarian to correspond with all other publishing societies on anthropology, with a view to obtain complete sets of their transactions.

6. The Librarian shall also keep a list of books which it may be desirable to obtain for the Society's Library.

7. In the absence of the Assistant-Secretary, the Curator and Librarian shall perform his duties.

8. In addition to the foregoing, the Curator and Librarian will be expected to perform such other duties as he may be called upon to do by the officers and Council.

9. The Curator and Librarian shall attend at the rooms of the

Society from 10 till 4 daily, and shall be entitled to six weeks vacation annually, taken at such a time or times as may be authorised by the officers of the Society.

The Council have much pleasure in reporting to the Fellows of the Society that they have unanimously elected Mr. J. Frederick Collingwood to fill the office of Assistant-Secretary. The connection of that gentleman with the Society as Honorary Secretary from nearly its commencement, and the admirable manner in which he then discharged his duties, is a sufficient guarantee that Mr. Collingwood will conduct the duties of his new and important office in an efficient manner. The Council feel assured that the Fellows of the Society will greatly rejoice to hear that Mr. Collingwood has consented to accept this office, and that henceforth his time and energies will be entirely devoted to furthering the objects of the Society.

The Council feel equal pleasure in congratulating the Society on the retention of the office of Curator and Librarian by Mr. Carter Blake.

The Council believe that the development of the Society has rendered the above-mentioned changes necessary; and should the Society continue to increase, they believe that it will be desirable further to add to the staff of salaried officers. A proposal has been made by Captain Burton, that there should be a paid travelling secretary; and another proposal by Mr. Bendyshe, that there should be a paid Director of the whole of the Society's affairs, who would be able considerably to lighten the work now devolving on the President. To discharge efficiently the duties which now belong to the office of President requires an amount of time and labour which the Council feel they have no right to expect from gentlemen called on to fill this post. Many of the Local Secretaries of the Society, and others carrying on explorations on behalf of the Society, have requested some deputy of the Council to attend and inspect their work. The Council are fully sensible of the advantages which would accrue to the Society from such periodical visits to our Local Secretaries, and to others making investigations on behalf of the Society. The services of a gentleman might be thus most advantageously secured, to whom the Council might entrust a general superintendence of the Society's affairs, under the direction of the Council, but at present they regret that the funds of the Society forbid such an appointment.

The Council consider that it will only be expedient to entertain this proposal when the Society has increased very considerably in numbers, and when a greater annual income is secured. The Council have thought it advisable to allude to these proposals on this occasion in order to make known their opinion that an efficient staff of salaried officers can alone permanently maintain a Society acknowledging so many obligations and duties. Your Council also feel that in making these proposals known, they will at the same time be announcing the necessity for continued activity on behalf of the Fellows of the Society in obtaining new members. The Council recommend that these proposals be taken into consideration on the Society's numbering one thousand paying Fellows.

Officers.—The Council have to announce considerable changes in the

officers of the Society since last anniversary. On the 16th May last, Mr. George E. Roberts handed in his resignation as Honorary Secretary, with regrets that he could not longer conscientiously hold an office to which he was unable to give the time it fairly demanded. The Council, acknowledging the justice of his reason, accepted his resignation. They had fortunately, however, no difficulty in finding a successor to Mr. Roberts in the person of Mr. H. J. C. Beavan, a gentleman fully qualified to occupy the secretaryship, and who was willing to undertake it. Mr. Beavan had for some time previously been an able and active member of Council.

The death of Mr. G. E. Roberts on the 21st ultimo, after a few days illness, will, your Council doubt not, cause general regret. The zeal with which the deceased discharged the duties of Honorary Secretary, as well as his amiable and genial disposition, render the unfortunate event which has so recently occurred, a source of great sorrow to the members of the Council.

Members.—The Council have elected 210 members during the past year. On the other hand, nine resignations have been received; and they have to regret the loss by death of six Fellows of the Society. The total number of Fellows on the Society's books amounts at the present time to 660.

Honorary Fellows.—Twenty-nine Honorary Fellows are now on the Society's books, 4 having been elected during the past year. The Honorary Members elected were: Professor Velasco, Madrid; Professor Max Müller, Oxford; Professor Nilsson, Stockholm; E. G. Squier, Esq., New York.

On the other hand, the Society has to regret the loss of Professor Gratiolet, experienced early in the present year.

Corresponding Members.—There are now thirty-nine Corresponding Members on the Society's books. The Council have to regret the loss of Professor Giglioli (of Pavia) by death early in the year.

Local Secretaries.—Thirty-nine Local Secretaries in Great Britain and Ireland are now enrolled, twelve of whom have been elected during the past year.

Fifty-two Local Secretaries abroad have now been enrolled, sixteen of whom have been elected during the past year.

One Local Secretary in England has resigned.

One Local Secretary abroad (E. Harbour, Esq., B.A.) was unfortunately drowned during the past year, shortly after his appointment as Local Secretary of the Society at Amoy.

Apartment.—The Society's Rooms during the past year have been constantly frequented by Fellows for reading and inspection of specimens in the Museum. Your Council hope that during the next year, it may be possible to complete the furnishing of the Society's Rooms, by the addition of book-shelves and glass-cases to receive the numerous valuable books and specimens now in the Society's possession.

Donations.—Many valuable donations have been received during the past year. The most important one is the foundation, by a member of the Society, of a special Library and Museum Fund, destined to meet the numerous preliminary and incidental expenses which are

attendant on the foundation of the extensive Anthropological Museum and Library now contemplated. They desire especially to return their best thanks to the following gentlemen for the liberal donations below cited.

W. Chamberlin, Esq., £1:1; W. Pinkerton, Esq., F.S.A., £2:2; J. Hillier Blount, Esq., M.D., £1:14; H. G. Atkinson, Esq., F.G.S., £5; A. Trevelyan, Esq., J.P., £5; P. O. Whitehead, Esq., £1:1; W. Hanks Levy, Esq., £1; J. Reddie, Esq., 10s.; W. Robinson, Esq., £5; M. Paris, Esq., 10s.; General Le Grand Jacob, £1:1; J. H. Challis, Esq., £5:5.

Extensive purchases were made on the Society's behalf at the sale of the library of the late Professor Vrolik of Amsterdam, and some of the most valuable anthropological works were there obtained at a moderate price for the Society's Library.

Library.—Many valuable works, bearing directly or indirectly on various branches of Anthropology, have been added to the Library since the last report. The Council, while acknowledging with the greatest pleasure the liberal presents, of which the donors are enumerated below, beg to remind the Fellows generally, and especially those living in the metropolis, who enjoy the fullest privileges of the Society, of the great benefit that must accrue to the Society from a larger annual addition to the Library than we have hitherto been able to show. Works of the current time, more particularly those of travel, colonial statistics of health and population, parliamentary blue-books containing evidence of whatever character on the condition of immigrants and natives, etc., would go far, much farther than a superficial and hasty thought might suggest, towards furnishing data of the highest usefulness and value. It may, therefore, be in the power of many Fellows at a small sacrifice to contribute largely and worthily towards the objects for which we are all labouring. The Librarian has undertaken the collection of an extensive series of tracts and pamphlets, the majority of which are of small intrinsic value, but which, when classified and indexed in volumes, will form a collection hitherto unexampled for size and usefulness. The Council feel that in making this appeal, they have only anticipated the further liberality of the Society.

Donations have been received for the Library from the following gentlemen:—H. G. Atkinson, Esq.; T. Bendyshe, Esq.; M. Paul Broca; H. Brookes, Esq.; M. Boucher de Perthes, Esq.; H. J. C. Beavan, Esq.; W. Bollaert, Esq.; T. S. Burt, Esq.; L. Burke, Esq.; C. Carter Blake, Esq.; J. W. Conrad Cox, Esq.; Rev. Dr. M. P. Clifford; J. Fred. Collingwood, Esq.; S. Edwin Collingwood, Esq.; Dr. Barnard Davis; M. D'Archiac; Carl Engel, Esq.; Dr. F. R. Fairbank; Dr. J. Hunt; Prof. Hyrtl; G. A. Hutchinson, Esq.; Dr. Halbertsma; J. W. Jackson, Esq.; D. G. F. Macdonald, Esq.; J. Miller, Esq.; G. W. Marshall, Esq.; J. Morris, Esq.; K. R. H. Mackenzie, Esq.; W. A. Nunes, Esq.; the Lord Bishop of Natal; D. W. Nash, Esq.; H. Burnard Owen, Esq.; Prof. Owen; T. E. Partridge, Esq.; M. Pruner-Bey; Dr. Peacock; J. Reddie, Esq.; George E. Roberts, Esq.; W. W. Reade, Esq.; R. T. Stothard, Esq.; Dr. Seemann; Dr. Constantine Simonides; E. Sellon, Esq.; Dr. W. Story; Capt. A. C.

Tupper; N. Trübner, Esq.; Dr. Ryan Tenison; M. Carl Vogt; R. B. N. Walker, Esq.; M. H. Wagner.

Museum.—The Council regret that, during the past year, they have not been able to sanction that expense for the exhibition of museum specimens which the importance and value of the articles required. They hope, during the ensuing year, to be able to show some part at least of the large and valuable collection, now temporarily deposited in a small storeroom. It is suggested that a large glass-case should, when the funds of the Society permit, be erected in the large room, which shall be devoted to our extensive collection of skulls and stone implements. During the last year, some valuable specimens have been obtained from the Society's correspondents in West Africa; and it is hoped that the Society will be able, at no distant date, to exhibit a complete set of the skulls of the various negro and negroïd tribes. Attention has been given, in all cases, to preserve, with every specimen presented to the Society, the fullest record of its history, and accurate notes of the locality from whence it was obtained.

Donations have been received for the Museum from the following gentlemen:—H. G. Atkinson, Esq.; T. Baines, Esq.; J. B. Baxter, Esq.; Rear-Admiral Drinkwater Bethune; E. Canton, Esq.; D. Gay, Esq.; M. Gratiolet; J. Meyer Harris, Esq.; J. McCoskey, Esq.; G. W. Marshall, Esq., LL.M.; Capt. Montgomery Moore; Major S. R. Owen; Dr. Sampson Roch; Capt. A. C. Tupper; R. B. N. Walker, Esq.; N. Whitley, Esq.

The Council have during the past year taken into careful consideration, on more than one occasion, the desirability of an entrance fee for all future Members, but have decided that such a course is not expedient at present. They have directed that a distinguishing mark be prefixed to the names of the original or Foundation Fellows, on the Society's lists; but that the question of the entrance fee be still held in abeyance. This decision on the part of your Council has been arrived at in consequence of the opposition which the Society has met with at the hands of the British Association, and the necessity that exists for increased numerical strength, to secure the recognition of anthropological science by that body. At the same time, the Council wish it to be distinctly understood that they are not, and never have been, in opposition either to the British Association or to any other body: their sole aim has been to discharge their duties to the Society, and to forward the progress of anthropology as much as possible. The Council consider that, in the actual condition of the Society, any measure likely to diminish the number of applications for membership would be highly inexpedient.

Translations.—The following translations have been published, under the Society's auspices, during the year 1865:—

Blumenbach, J. F., the Life and Anthropological Treatises of; with the Inaugural Dissertation of Dr. John Hunter. By T. Bendyshe, Esq., M.A., V.P.A.S.L., Fellow of King's College, Cambridge.

Gastaldi, Cavaliere Bartolomeo. Lake Habitations and Prehistoric Remains in Northern and Central Italy. Translated from the Italian, by Charles Harcourt Chambers, Esq., M.A., F.A.S.L.

Mr. Bendyshe's translation of Blumenbach's work appeared early in the year, and has attracted so large a share of attention outside the Society, as to afford the most flattering testimony of the judgment of the selection, first of the work itself for translation, and secondly of the gentleman into whose hands the task of editing was entrusted. A large correspondence with the Fellows of the Society, has convinced the Council in their behalf, it could not in this case have discharged its duty better, nor with greater general satisfaction.

Mr. Chambers's translation of Cav. B. Gastaldi's work has, it is believed, met with general approval.

Memoirs.—A large volume of original memoirs, read before the Society, has been issued to the Members during the present year. During the next year, the Council intend to publish a second volume of the *Memoirs*, a large portion of which is already in type: many of the papers will be copiously illustrated with woodcuts. The first volume of the Society's *Memoirs* will soon, it is believed, be out of print; and the Council suggest to those Fellows of 1866, who may wish to complete their sets, the expediency of the purchase of the first volume without delay. In future, the long and technical papers, which have frequently been inserted in the *Journal* of the Society, will be printed in their proper place in the *Memoirs*. This step will to a great extent increase the great scientific and practical value of the *Memoirs*, whilst it will relieve the *Journal* of much matter which is more suitable to the volume of *Memoirs*.

Anthropological Review and Journal of the Society.—The *Journal* of the Society is still, as it has always been, issued quarterly, with each number of the *Anthropological Review*; and the experience of another year has confirmed the usefulness of the co-publication of the two. The only noteworthy change is in the time of publication. The Council, and the Fellows of the Society generally, having thought that the issue of their *Journal* would benefit by its publication at the quarters commencing January, April, July, October, instead of February, May, August, November, application was made to the publishers of the *Anthropological Review*, who cordially agreed to the proposed alteration; accordingly, the change was made in July, by the publication of No. X a month prematurely, and the Council believe that the Society acknowledges the benefit of the change already.

The editing of the *Journal* has continued to be performed by the Assistant-Secretary, under the direction of the Publication Committee. The diffuse character and great length of many of the discussions during the present year, have necessitated, in more than one case, the publication of a *verbatim* report of the proceedings, contrary to the usual practice of the Society. With a view, however, to prevent the premeditated delivery of written speeches, which are essentially of the nature of formal communications to the Society, your Council have resolved that, for the future, no written speech be delivered before the Society without having first been laid before the Council, and sanctioned by them. It is hoped that this expedient may prove of great benefit to the hearers of the discussion, and that it may also tend to the elimination of much superfluous matter from the Society's *Journal*.

Explorations.—During the past year, a portion of the Society's income has been expended in the furtherance of scientific exploration and research. A sum of money was voted to assist Mr. R. B. N. Walker, a Fellow of the Society, in his exploration of Equatorial Africa. A grant was also made to partly defray the expenses of the investigations, undertaken by the Society, into certain archaic anthropological remains in the British Isles.

The Council have been reluctantly compelled to refuse several applications, which have been made recently, for pecuniary assistance in carrying out various similar scientific undertakings.

Societies.—The list of societies exchanging publications remains the same as last year, with the exception of the Royal Asiatic Society; the Royal Society of Antiquaries of Scotland; the Société des Amis de la Nature of Moscow; the Sociedad Antropológica Española of Madrid; the Société d'Archéologie de Namur; the Ethnological Society; with whom an exchange of publications has been arranged.

In concluding the report for 1865, the Council wish most seriously to impress upon all the Fellows the necessity there is for increased zeal and co-operation during the coming year; for it is to the Fellows as a body and individually that the Society must look for its progress and success. The officers and Council endeavour to propose and carry out every measure which may appear likely to advance the cause of anthropology, but they can do little by themselves. They have always hitherto received hearty co-operation from many of the Fellows; and they doubt not that they will receive much more from the anticipated large increase of working members, during 1866.

Signed, on behalf of the Council,

JAMES HUNT, *Chairman.*

Major OWEN said, I shall not take up our time with many comments on the very satisfactory Report we have just heard read. There is other work to get through; and we are naturally anxious to hear what our esteemed President has to say to us on this occasion. But I cannot refrain from congratulating you on the good fortune that has attended us in securing such a man as Mr. J. F. Collingwood to be our future Secretary. He has been long well known and appreciated by us. Gentlemen, I propose that this Report be adopted.

The motion was seconded by Mr. A. HENRIQUES, and was unanimously agreed to.

H. W. JACKSON, Esq., and A. Henriques, Esq., were then appointed Scrutineers, and the ballot for the election of officers of the Society for the ensuing year was proceeded with.

Mr. BOLLAERT proposed to amend Rule 9 of the Society, by the omission of the word "same", and the introduction of the word "next."

Mr. BEAVAN seconded the resolution, which was carried unanimously.

Mr. E. BRABROOK moved "that the thanks of the Society be given to the retiring members of the Council, Mr. C. H. Chambers and Mr. S. E. B. Pusey, for their services during the past year." He said he moved that resolution with the more pleasure, from having known the retiring members in their individual capacity. Mr. Pusey had

been a liberal benefactor to the library of the Society; and he and Mr. Chambers had often taken part in the proceedings at their ordinary meetings. Mr. Brabrook alluded with great regret to the death of Mr. Roberts, who had been a member of the Council, and whose loss would be much felt by the Society.

Mr. A. WILSON seconded the motion, which was carried unanimously.

Mr. MACKENZIE proposed the next resolution, which he said he did with cordial satisfaction. It was, "that the thanks of the Society be given to the President, Vice-Presidents, officers, and Council, for their services during the past year." Having been in communication with all those gentlemen, he could bear testimony to the able manner in which they had discharged their duties. He had watched the progress made by the Society during the last year with much interest; he felt full confidence in its success; and, knowing the difficulties the officers of the Society had had to contend with, he could appreciate what they had done. The struggle at Birmingham had been an exciting one; and he felt assured that they had moved a step forward in consequence, and in the right direction. Had it not been for the advice and energy of the President on that occasion, the Society would not have been in the position it now occupied.

Dr. CAPLIN in seconding the motion, observed that the Society could not succeed without having proper men at its head; and he felt much pleasure in seconding the resolution, in which he hoped they would all cordially join.

The motion was carried by acclamation.

The PRESIDENT, Mr. BOLLAERT, Mr. BEAVAN, and Dr. CHARNOCK, briefly returned thanks.

The Rev. DUNBAR I. HEATH, on rising to propose "that the thanks of the Society be given to the Auditors", observed that these were a class of officers who, the more they had to do, the worse it was for the Society; and, as he had been nominated the Treasurer for the next year, he hoped that, as on the present occasion, the auditors would have an easy time of it.

The resolution was seconded by Mr. G. F. ROLPH, and carried unanimously.

Address delivered at the Third Anniversary Meeting of the Anthropological Society of London. By JAMES HUNT, PRESIDENT, Ph.D., F.S.A., F.R.S.L., F.A.S.L.

GENTLEMEN,—For the first time since I have had the honour of being called upon to deliver the annual address to this Society, it is my duty to record the loss by death of several of our Associates, of one Honorary Fellow, and of one Foreign Local Secretary. I propose to follow the example set by the Presidents of some of the older scientific societies of the metropolis, and to give a short obituary notice of the deceased Fellows:—

GEORGE EDWARD ROBERTS. It is with much regret that I have to announce the death of one who has been intimately associated with this Society since its formation—our late respected and amiable Honorary Secretary, Mr. George Edward Roberts. The death of our

colleague comes home to many of us with peculiar regret. We have not simply lost a friend, but his death has also destroyed some pleasant associations connected with the early history of this Society. Mr. Roberts was one of those who attended the meeting held in this room on the 6th of January, 1863, and subsequently took an active part in drawing up our rules and regulations. Before this, Mr. Roberts had been invited to take the Honorary Foreign Secretaryship, and, although he declined that office, he was always ready to serve the Society even before finally joining as a member. Mr. Roberts had a large private correspondence amongst scientific men throughout the world, and would have been eminently fitted for the office of Foreign Secretary. On Mr. Blake resigning his post as senior Honorary Secretary in June, 1864, Mr. Roberts consented to be elected as his successor, and he discharged the duties of that office until June last. During that time I had ample opportunity of judging of his thorough interest in the welfare of the Society, and of the admirable manner in which he made himself master of any subject before giving his opinion. Many points of considerable importance to the welfare of the Society were discussed during the time that Mr. Roberts held office, and he uniformly showed that he had confidence both in the future of the Society and in his colleagues. Mr. Roberts was one of those who has always contended that this Society ought to be, and ere many years would be, the largest and most important scientific society in this metropolis. Unfortunately he has not lived to see whether his opinion would be verified, having gone from us at the early age of thirty-four. The Society has lost in him a sincere and zealous member. His work must not be estimated by the number of pages contributed by him to our publications, his chief labours on our behalf having consisted of letter writing. He made our society known by this means to all his correspondents, and urged them to assist in our work. He never lost an opportunity of inducing his acquaintances to visit our museum or to attend one of our meetings. When recently travelling in Scotland, I found that Mr. Roberts was widely known there by name if not personally. Through his industry and zeal we are indebted for our best knowledge of the discoveries in the Zetland Islands, and it was at the earnest solicitation of Mr. Roberts that I undertook my recent journey to explore them.

Mr. Roberts was born at Birmingham in 1831, and his family removed soon afterwards to Kidderminster. Here he exhibited an early taste for geology and botany. He wrote some little books of local interest, viz., *The Valley of Habberley and the Hill of Trimpley*, *The Abberley and Woodbury Hills*, etc. He afterwards endeavoured to combine science with imagination in some children's books, amongst which are *Charley's Trip to the Black Mountains*, *Snow-bound in Cleeberry Grange*, *A Book for Fairies*, etc. His reputation, however, as a geologist rests chiefly on his work entitled *The Rocks of Worcestershire*, a paper on *The Geological Strata of the North of Scotland*, and an article published in 1864, entitled *Remarks upon the present Condition of Geological Science*. He was a frequent contributor to the *Geological Magazine*, the *Intellectual Observer*, the *Reader*, and other



Yrs. ever
George Herbert
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periodicals. During the existence of the *Parthenon*, he was its scientific editor. Mr. Roberts was a Fellow of the Geological Society and an Honorary Member of the Worcestershire, Severn Valley, Warwickshire, and Naturalists' Field Club, and also of the Worcestershire Archæological Society. His contributions to our own Society consist of the following papers :—"On Mammalian Bones from Audley End, Essex;" "On a Jaw from Buildwas Abbey, Salop;" "On Prehistoric Hut-circles." With Prof. Busk he contributed a paper "On the Opening of a Kist of the Stone Age;" with the Rev. J. M. Joass he was the joint author of a paper on "Prehistoric Dwellings in Rosshire;" with Mr. Bolton he arranged the notes relating to the Kirkhead Cave at Ulverstone; whilst with Mr. Carter Blake he was the contributor of papers on Human Remains from Peterborough, and on the Discovery of large Kistvaens in the Mücke Heog in the Island of Unst, Shetland. Mr. Roberts, I am informed, was well acquainted with Palæozoic geology, and especially with Cambrian rocks.

In private life our friend was well known for his extreme sociability. A friend of his, Mr. John O. Middleton, writes to me: "I never met a man of a more genial and uniform temperament. I grieve for the loss of so sincere and genuine a friend. His removal seems to leave a void in my personal history; and I think I do not extol his virtues and amiability of character too highly when I say that he has gone to his grave accompanied by the sorrow of all who knew him." I cordially agree with this testimony to our deceased member. There was much in the character and example of Mr. Roberts deserving of imitation; he was never averse to trouble, and when holding the office of Honorary Secretary thought nothing of travelling long distances on the service of the Society. Others must now do the work which Mr. Roberts undertook for us, or our Society will suffer. His loss to us is greater than is generally supposed; only those who knew how much and how quietly he was working in our behalf can duly estimate it.

This is only a short and poor tribute to the worth of our colleague, but the event of his death is so recent that we have not yet had time fully to realise either the vacancy caused in our Society, or the loss we have sustained in his genial presence at our meetings.

THOMAS WILLIAMS, M.D., F.R.S., F.L.S., etc. Dr. Williams was a man of considerable reputation as a physician and as a student of science. His father was a Welsh clergyman. Dr. Williams was a man of great industry and considerable imagination. One of his early works was on the "Co-relation of the Three Kingdoms in Nature." In 1857, he contributed a paper to *Todd's Cyclopædia*, on the "Structure of the Lungs of Man and the Vertebrated Animals." Dr. Williams was early threatened with renal disease, and compelled to leave London. He settled at Swansea, where he continued his practice, and also his researches as a naturalist. Besides these occupations, Dr. Williams found time for the study of the language and antiquities of Wales. He was a great reader; and although living out of the metropolis, kept himself informed of the latest discoveries in every branch of science. Dr. Williams was elected a Fellow of our Society on May 3rd, 1864, and died on the 23rd of May last, aged forty-six.

JOHN STEVENSON. Mr. Stevenson, I am informed, was a young man of considerable ability. At the end of 1864, he went to Australia for the benefit of his health, and died at the early age of twenty-nine on his voyage home.

JOHN CASSELL. It may be a matter of surprise that this Society should have numbered amongst its members such a man as the late John Cassell. This circumstance, however, is noticeable as giving evidence of the wide range of our science. Mr. Cassell had no pretension to be a scientific man; but he possessed very great intelligence and extensive general information. Thousands who have never even heard the name of our science, are well acquainted with that of John Cassell. The fact of men of this stamp joining our Society is a hopeful sign, and gives evidence of the largeness of our sympathies thus to embrace men of all shades of opinion. Had Mr. Cassell been spared, he might, perhaps, have played no unimportant part in making known the results of our science amongst the masses. He had warmly at heart the social, moral, and intellectual elevation of the people; and Lord Brougham has borne honourable testimony to his services in this direction. Mr. Cassell had raised himself from a very humble position. He was only forty-eight years of age at the time of his death. His parents were natives of Kent.

HENRY STANHOPE FREEMAN. Mr. Freeman was at the time of his death, at the early age of thirty-four, governor of Lagos. He had not contributed to our transactions, but attended and spoke at some of our meetings, and promised to do all in his power to aid the Society. On one occasion he publicly stated his regret that he had not known earlier the works of the Society, and the wants of the science of anthropology, before returning to England on sick leave. He went to Africa full of hope for the West coast; and I trust he has left behind him some record as to how far his preconceived ideas respecting negro civilisation were verified by his personal observation.

DR PIERRE GRATIOLET. I shall purposely refrain from alluding to the loss anthropological science has sustained in the death, at the age of fifty, of our lamented Honorary Fellow, the illustrious Gratiolet. M. Broca has undertaken to write his life, and this will ere long be translated and published with M. Gratiolet's masterpiece, *Mémoire sur les Plis Cérébraux de l'Homme et des Primates*. Under these circumstances, I think I shall do well in leaving the praise due to this illustrious man to one who is so much more qualified for this official task than I can pretend to be.

EDWARD HARBOUR, B.A. We have also to record the death of our Local Secretary for Amoy. Mr. Harbour was only elected on the 2nd May, 1865. He was unfortunately drowned owing to the upsetting of a small boat. We have to regret in Mr. Harbour a young man of very great promise, and from whom we expected to have obtained valuable information respecting the Chinese. Mr. Harbour was known as a frequent contributor to periodical literature.

I propose now to make a few remarks on a subject which I introduced to your notice at our last anniversary, viz., the definition of our science. I also spoke at that time on the history of the word Anthro-

pology. Since that occasion I have read Mr. Bendyshe's admirable history of the word, and sufficient has been said by him on that point to render it unnecessary for me to add thereto.

The history of the first use of terms is a trifling matter compared with what ought to be their definition at the present time. This subject is one of the greatest importance, and we cannot pay too much attention to it, inasmuch as the future success of our science will depend in a considerable degree on a clear definition of our terminology. All sciences have certain well-defined subdivisions. Thus, in geology, there is palæontology, geography, and geognosy, which are analogous to the divisions of our science proposed last year, viz., historical anthropology, descriptive anthropology, and comparative anthropology. The question arises, are these three definitions sufficient? I now beg to offer a few suggestions on this point. To show its importance I will briefly narrate what took place at a meeting of our parent society in Paris only in May last.

Towards the end of the sitting on May 18th, a somewhat lengthy conversation took place between MM. Rochet and Broca on the signification, the scope, and the limits of anthropology. The questions raised by M. Rochet chiefly related to the insufficiency of the notion given by article 1 of the statutes relative to the objects of the society, which is indicated as being *the scientific study of the races of mankind*. If these words, said M. Rochet, are taken in this restricted sense, it is clear that the Society has constantly departed from its objects, since it has occupied itself not merely with human races, but with man and the industry of man, and all manifestations of his activity. That there is accumulated in the *Bulletins* and *Mémoires* a mass of documents for which it is difficult to find a centre. M. Rochet, being desirous to learn whether certain works he is now engaged in belong to anthropology and may find their place in the publications of the society, said he would feel obliged if such members of the society as might be able to enlighten him on this point, would give him a more precise definition of anthropology than is contained in the statutes.

M. Broca after stating that on several occasions, and specially in his history on the labours of the society published in the second volume of the *Mémoires*, the questions of M. Rochet had been replied to, said that he could not better explain the phrase of the statutes than by giving the history of the foundation of the society. He showed the necessity in which the founders found themselves in the presence of the distrust of the government to keep to this laconic and insufficient phrase. But he thought that he expressed the opinion of most of his colleagues by saying that Anthropology is the study of the human group, not merely by itself but also in its relation to the rest of nature; the differential characters of anthropology on the one hand, and those of history, biology, and archæology on the other, indicating, at the same time, how far these schemes are connected with anthropology. M. Broca reminded M. Rochet that at all times artistic productions have served to characterise the races of the past as documents characterise the present races, inasmuch as they reveal particular aptitudes.

These remarks show how advisable it has become for all anthropologists to possess some clear conception and definition of the objects and limits of their science. When an anthropological society was to have been founded in Paris in 1846, objection was taken by the government of that day to the formation of such a society. Even at the present day we cannot say how far our fellow students are able to declare the full meaning and extent of anthropological science.

It will, however, be seen from M. Broca's reply, that there is really little difference of opinion as to the definition of the science of anthropology by ourselves and by our Parisian colleagues. Being agreed on this point, it would be very advisable if we could also agree as to the divisions of our science. It is with the hope of eliciting some discussion on this point, and also because I think the classification proposed last year to some extent unsatisfactory, that I now propose the addition of another division of our science, under the title of *ARCHAIC ANTHROPOLOGY*.

Twelve months since, I suggested that all subjects which throw light on man's history should be classified under the head of "Historical Anthropology"; a term used by Rudolph Wagner, but which was originally proposed by Christian Daniel Beck, a Professor of Ancient Literature in the University of Leipsic as early as 1813, in his *Universal History*. By this writer, historical anthropology is made to include mythology, language, genealogy, etc. I think it would be advisable for us still to continue to confine the meaning of historical anthropology to man's psychological history, and to introduce another term for his physical history. The term "human palæontology" was formerly and is now used to denote this branch of our science; but although sufficiently explicit, it is not well suited to supplement the titles of the other three. I propose, therefore, to take the root of the word *archæology*, and to include under the term "archaic anthropology" all subjects which illustrate man's past physical history. Historical anthropology will then be limited to man's psychological history.

Skulls, worked stones, tumuli, architecture, and all tangible things will be included in the former; mythology, history, creeds, superstitions, in the latter. Every writer on the antiquity of man has occasion to speak in some way of what has been called the *archæological* evidence. Thus an author, whose loss we all deplore, the late eminent Dr. Hugh Falconer, observes, "Geology has never disdained to draw upon any department of human knowledge what could throw light on the subjects which it investigates. Cuvier, in the *Discours Préliminaire*, exhausted the records and traditions of every ancient people in search of arguments to support the opinion that the advent of man upon the earth dates from a comparatively late epoch. At the present time the whole aspect of the subject is transformed. The science is now intimately connected with *archæological ethnology* in searching for evidence of the hands of man in the oldest quaternary fluvial gravels of Europe."*

The expression, "Archæological Ethnology", is, to say the least, a

* "Journal of the Geological Society", No. lxxxiv, p. 383.

most infelicitous one. In the first place, it is not a question in any way connected with ethnology according to any definition which I have ever heard given to that word; and in the second, there is certainly no necessity for two "logos" terminations. To use the author's own words, the search is for "evidence of the works of man" and is not in any way connected with the question of race. I therefore beg to suggest that for the future it would be advisable (until a more suitable classification or expression is proposed) to use the term "ARCHAIC ANTHROPOLOGY" instead of the most indefinite word "archæology." We shall then have:—

1. Archaic anthropology, or the past history of man, from his physical remains and works.

2. Historical anthropology, or the past history of mankind, as deduced from mythology, creeds, superstitions, language, traditions, etc.

3. Descriptive anthropology, or the description of man and mankind.

4. Comparative anthropology, or the comparison of different men and different races of men with one another in the first place, and a comparison of man with the lower animals in the second.

The questions then arise; do these subdivisions all go to make up one science which has a centre within itself? Can any of these divisions be taken away and a veritable science yet remain? Do these divisions include the whole science of man?

The first two treat of man's past history, and all must admit we ought to know all that can be known on this point in order to form a science of the present. But it may fairly be asked is there any necessity to divide archaic from historical anthropology? It appears to me advisable that we should have a physical historical anthropology, and a psychological historical anthropology. If we call the former archaic anthropology, and the latter historical anthropology, we shall be simply following out the separation which for a long time has subsisted between archæology and history. The word archæology has been used in such a variety of senses, and also in such an extended sense as to be made to include everything old, and some things new. Church architecture and corporation seals now afford much discussion to the archæologist. The other day I heard it announced that the study of the postage stamps of different nations was an interesting branch of archæology!

In using the term archaic anthropology we must guard against giving it such a vague meaning as archæology has now acquired. We must also endeavour to draw a pretty clear division between what is to be respectively called archaic and historical anthropology. All forms of palæography and ancient art should belong to historical anthropology. A cromlech would belong to archaic anthropology, but if inscriptions be found on it, that part will belong to historical anthropology; and thus the one will be the handmaid of the other. Archaic anthropology will help to give us the history of ancient humanity; historical anthropology brings us into closer communion with them, and both will combine to enable us to build up a science of man in the past and the present.

I have heard it remarked during the past year, that the terms descriptive anthropology and comparative anthropology are defective, inasmuch as we cannot compare until we have described. To this objection, I reply, that we may describe without comparing. Descriptive anthropology is, like geography, no science in itself, because it only describes. Every traveller who describes the people with whom he comes in contact, whether conscious of the fact or not, is a descriptive anthropologist, but not necessarily a comparative anthropologist. Homer, Herodotus, Pausanias, Strabo, Diodorus Siculus were rather descriptive anthropologists than comparative anthropologists. Perhaps the first comparative anthropologist was Tacitus, and he was also a descriptive anthropologist. It is not, however, necessary that the comparative anthropologist should also be a descriptive anthropologist, although it may be advisable that a man should learn to describe before he begins to compare. A man might be a very good comparative anthropologist on the correct observation of his brother, the descriptive anthropologist. A man may be a very good archaic anthropologist, without knowing anything of ancient inscriptions, art, myths, or traditions, and *vice versa*. Each branch can be defined with sufficient exactness, but cannot in practice be separated if we want to establish a veritable science of man.

Attempts have frequently been made to divide the science of anthropology into branches. Steffens, a distinguished anthropologist, who published a work on the subject in 1822,* proposed making three divisions of the science of anthropology: 1. Geological anthropology, 2. Physiological anthropology, and 3. Psychological anthropology. We also find Nasse, in the *Zeitschrift für Anthropologie*, 1825, proposing to make two divisions under the titles physiological and psychological anthropology. More than forty years ago we find him making the following remarks, which illustrate what was the meaning of anthropology to his mind at that time. "The evolution and origin of language cannot be neglected by the anthropologist. How did the variations in the human species arise? The history of human nature from the earliest period to the present time presents questions which anthropology must endeavour to answer, or at least to elucidate. Has the human race degenerated or improved? . . . Neither is physiological anthropology an appendix to psychology, nor the latter an appendix to the former. The relations of psychical to physiological life, and *vice versa*, belong neither to physiology nor psychology, but form an integral part of anthropology."

"The Germans possess a great advantage over English authors, inasmuch as they may, without subjecting themselves to the animadversions of hypercritics, select expressive terms from the vernacular tongue. They have thus for ethnography, *Völkbeschreibung*, *folks-description*; for ethnology, *Völkerkunde*, *folks-knowledge*; and for anthropology, *Menschenkenntniss* i.e. *man-knowledge*, constituting, in a restricted sense, the science of man considered individually in all his aspects, physical, intellectual, and moral; and the science of mankind

* "Anthropologie", Breslau, 1822, 2 vols.

when viewed collectively. They look therefore upon ethnography and ethnology as subdivisions of anthropology.

I am quite willing to admit that "folks-description" is as good a term as "ethnography." "*Folks-knowledge*" is also no doubt quite equal to ethnology in scientific exactness, although Prichard, the father of English ethnology, attached a different meaning to that word; but "folks-knowledge" is certainly not so expressive as the term comparative anthropology, the suitability of which is becoming more appreciated every day.

It has been interesting to watch the discussion which has been going on during the past year respecting the definition of the words anthropology and ethnology. A remarkable feature of this controversy in our own country is the curious forgetfulness on the part of some of the combatants, of the fact that certain words are doomed to extinction, while others, by an inherent law of "selection", live and become generally accepted. The use of the word anthropology, and the development of a great science under that name, is not the work of a few individuals, but is a part of the intellectual development of Europe. The British Association has ignored this fact, and from other quarters we have received credit which we do not deserve. Some words, like some existing species of plants, animals, and even men, appear doomed to become extinct. In Germany I learn that the word ethnology has ceased to be used. Dr. Carl Vogt writes me in a letter dated August 28, 1865, "Ethnology embraces a very secondary and confined branch of anthropology; for the aim of the latter science is to study and know man in all his phases, and not merely as to the branches and peoples, into which the human race can be subdivided. Truly we should think ourselves very ridiculous, and every one would look upon us as upon those men in powdered wigs of your lords and baronets, only destined to mount behind the chariot of science, by adopting this antique word, which is no longer used in Germany. We must have the entire race, the complete *ανθρώπος*, as it is scattered and buried in the beds of the earth, and not these ephemeral apparitions, the combined results of artificial and natural selection, which are called peoples and nations."

A very praiseworthy attempt has been made on the part of some of our fellow-countrymen during the past year to act as a sort of "Aborigines Protection Society" towards the word ethnology. A periodical called the *Ethnological Journal* was started apparently for this special purpose; but nature's laws appear to have doomed this word, if not to total extinction, at least to a very modified signification from that proposed by the supporters of this periodical. In France attempts are also being made to retain the word ethnography: but the following extract from M. Léon de Rosny will show in what sense this word is there used.

M. Léon de Rosny, speaking as an ethnographer, says, "Anthropology, nevertheless, as a natural science, must not be neglected; far from it. It nevertheless seems to us, that the principles of this science remain yet to be discovered, whilst *philology* rests upon an ensemble of positive laws which preclude it groping in the dark."

He also says that ethnography is essentially distinct from anthropology—the former being an *historical*, and the latter a *natural*, science.

When it was announced before the Paris Anthropological Society on November 3, 1864, that the British Association had decided that anthropology was included in ethnology, the statement was received with roars of laughter—really the only sensible reception which could be given to such a monstrous assertion.

On this point I cannot do better than quote the opinion of Dr. Pruner-Bey, the late President, for 1865, of our parent society. In a letter to myself, dated August 26th, 1865, he says:—

“I sincerely hope that the family quarrel will be settled to your own and our satisfaction. About that truly German verbal quarrel, I must frankly confess that in this particular case, in my humble opinion, the right is on your side. Anthropology, a general and comprehensive term, signifies the science of man (in the abstract, and in every respect); whilst Ethnology is the science of nations, and falls by this specification under the head of the first. Finally, ethnography is the merely descriptive part, and bears the same relation to anthropology as geography bears to geology. Anthropology, as the present generation understands it, has to be worked out by other means and methods than those at the disposal of our predecessors.

“This last remark must not be interpreted as tending to throw blame on those men whom I have always considered as my masters, but as the simple expression of a conviction quite as deeply rooted in my mind as is my gratitude to them. Every epoch of human civilised existence has its object; and that of the present day is universal knowledge (of course within the limits of human understanding) for gradually establishing practical universal principles. If I am right in this, anthropology will not beat ethnology, but, like a hopeful child, will embrace and take care of its worthy mother.”

But I need not go out of our own country to prove that ethnology is merely a department of anthropology; and, not to dwell further on such a topic, I will conclude this portion of my subject by commending the following remarks* by Professor Huxley to the notice of the Ethnological Society and the British Association:—

“Ethnology, as thus defined, is a branch of anthropology, the great science which unravels the complexities of human structure; traces out the relation of man to other animals; studies all that is especially human in the mode in which man’s complex functions are performed; and searches after the conditions which have determined his presence in the world.”

No one can deplore more than myself the position which has been taken by our ethnological brethren with regard to our admission to the British Association. It is quite impossible for us to see the logic of, or the reason for, the position they have there assumed with regard to our science. The only clue which, I believe, ethnologists have ever published as to their motives for opposing us is to be

* “Fortnightly Review”, June 15th, 1865.

found in the columns of a recently published periodical,* in which we find these words: "If the new section is to bear the name of anthropology, its government must necessarily devolve on the Anthropological Society, which far outnumbers the Ethnological. If the name ethnology is preserved, there is at least an additional chance that the minority in the amalgamated body will retain some moderate portion of the influence due to their intrinsic character."

If this jealousy of our influence is the true cause for the opposition offered to us by ethnologists, time has been wasted on verbal distinctions. We are glad, however, to know what the real cause is. If the logic of the above extract leads us to the true reason for the opposition of ethnologists, we are willing to give them credit for acting in an intelligible manner, although we may not be able to admire such a spirit in men of science.

As long as men are influenced by such petty jealousy as that displayed in the extract I have quoted, it is not likely that they will be amenable to reason. We shall be glad to see whether they will disclaim such motives, and that in a practical manner, by joining with us to obtain a special section for the science of man in the British Association. Had they told us before that they feared a loss of influence if our name were used for the new section, we should have been ready to reassure them on that point.

At Birmingham, I officially declared that it was the thing we wanted—a special section for the science of man; and that we were prepared to make the name entirely a secondary consideration. An alliance, however, had been entered into between the ethnologists and a section of the geographers, and we were opposed on all points. Exception has been taken to the means used to prevent our carrying our proposal at some future day; and, perhaps, not without just cause. In saying this, however, I have no intention or desire to convey the impression that this society is in antagonism to the British Association; on the contrary, I wish emphatically to proclaim that such is not the fact. We are simply fighting against those who have used their power and influence to destroy the position which a part of the science of man once held in the British Association. We have a large and increasing number of supporters in the Association; and, had not the Council arrogated to themselves powers which they have never before assumed, there is no doubt we should have carried our motion next year. Under actual circumstances it was not thought advisable to give notice for the same motion until we have really some chance of carrying it.

As it is now settled, the science of man is to go to the biological section, and ethnology is to remain with geography in Section E. Is then, ethnology no part of the science of man?

I trust that the authorities will take this matter into their most earnest and serious consideration, and not allow themselves to be dictated to by anyone, but simply consider how they can best advance the cause of science. Their present position cannot be defended.

* "Ethnological Journal", September 1865, p. 145.

The cause of anthropologists and ethnologists is the same when asking for a special section for the science of man. If we were united, we could demand this from the Association. "Unite and conquer," is as true as "divide and be conquered."

Supposing, too, the loss of influence by the ethnologists is a legitimate reason for their opposition to the proposal we made last year, I would remark, then, that they are no better off where they are. At present they have not the "influence due to their intrinsic character." Fifteen years experience has shown that there can be no real scientific discussion on any branch of the science of man in Section E, as at present constituted.

I feel it, however, my duty, to take this opportunity of publicly returning the warmest thanks of myself and my colleagues to Sir Roderick Murchison, Mr. Crawford, and those gentlemen who have united with them to prevent our recognition by the Association. Much of our success during the past year is to be ascribed to this opposition on their part. The longer this is continued the better will it be for this Society. If, therefore, we do not obtain a section for the science of man in the Association, we gain very considerable strength from their opposition to such a proposal.

Our success is now simply a question of time. The more unfairly our science is treated, the sooner will it be recognised. The action of the Council last year obtained us very many members; and, besides this, it has aroused the energy of some of our Fellows who had hitherto taken no active part in the affairs of the Society. When the history of this struggle in the British Association comes to be written, it will be most instructive, as illustrating the state of a portion of the scientific mind of England in the middle of this century. As M. Broca well says: "The contest which has commenced before the British Association is truly very curious . . . and when all this shall have passed away, no one will ever believe in the historical reality of this resistance." The struggle began twenty years ago, and may perhaps go on for that time longer.

When the Council of the British Association recommended that the science of man should be included in the Biological Section, they no doubt anticipated that this arrangement, being some concession to our demands, might be accepted by us. The authorities of the British Association are now trying to do what was attempted with anthropology more than thirty years ago in Germany. Nasse, writing in 1823, and speaking of the attempt at separation of the different branches of anthropological science, says: "This separation has been very injurious to anthropological inquiry; for, according to it, man has been delivered up to two separate faculties—his psychical part to philosophers, his physical part to physiologists. Even at present, endeavours are still being made to keep these inquiries separate." It is not a little strange that some of our men of science should assume the same attitude towards anthropology as that taken upwards of forty years ago by some men of science in Germany.

Why all this dread of anthropology? Why do men who have spent the earlier part of their lives in furthering the cause of science, endea-

vour to attain public applause from the masses by arresting its further development? What made a leading member of the British Association utter the vain boast that he had made "the coffin of the anthropologists"? The reply to the last question may perhaps be found in the speech of Cassius.

"Why, man, he doth bestride the narrow world
Like a Colossus; and we petty men
Walk under his huge legs, and peep about
To find ourselves dishonourable graves."

Such boasters do much to bring the name and the cause of science into contempt. It should ever be the object of those who conduct this Society, to do so in such a truly scientific manner, as not to allow it to fall into the state of one, at least, of our existing scientific societies. I allude to the unfortunate position to which Sir Roderick Murchison, Bart., has brought the Royal Geographical Society. From a useful scientific body of students of physical geography, this society has degenerated under his *régime* to a fashionable *réunion*. This is not the fault of the portion of science to which that society should be devoted, but is an admirable illustration of the evil effects of courting public applause. I merely mention the Geographical Society as an illustration of what this Society may become if she were to depart from her original programme, or forget which should be the true aim of every scientific body. I am aware that there are many of the leading geographers of this country who are fully sensible of the present state of their science in England; and in time, I have no doubt that the Royal Geographical Society will resume its sphere of scientific usefulness.

So much misconception and confusion have arisen in this country with regard to the word anthropology, that I believe our real claims are not yet fully understood even by the leading members of the British Association. Their recent legislation in assigning the "science of man" to the Biological Section, and retaining "ethnology" in Section E, sufficiently indicates the crude notions which exist respecting the "science of man." According to this legislation, ethnology is not the "science of man," nor any part of it, or why keep it in another section? I can hardly understand how it is that ethnologists have not raised their voices against such a decision. However opinions may differ respecting the definitions of the word ethnology, I cannot imagine any valid reasons for their not uniting with us to obtain a special section for the science of man. The present state of things seems far worse for our ethnological brethren than for ourselves. The science of man is now allotted to the Biological Section. We shall feel more at home amongst oysters and lobsters, than when associated with the students of surface geology, commonly called geography. The Council of the British Association who came to this decision, are henceforth to decide all similar points. The confusion which this is likely to cause is delightful to contemplate. We shall watch with much interest what papers are read under the title of ethnology. Those treating of the science of man will necessarily, according to the present arrangements, be read in the section to which the science of man is to be sent. This, however, is not expressed in the report of

the Committee of Recommendations. They merely advised "that no special section or sub-section be established for the science of man." This is just the point on which all who study the science of man, or any important department of that science, must logically be at issue.

As long as this state of things lasts, it will be our duty to continually reiterate the fact that the science of anthropology is a part of no other science. Anthropology is not, like geography, a mere portion of another science. In one sense, anthropology is no doubt a branch of the science of life—biology. We can, however, imagine no real man of science coming forward and advocating that anthropology should be studied with infusoria and fungi. Whatever may be our opinion of man's relation to the rest of the animal kingdom, all must admit that, for the purposes of study, it is desirable we should separate him from both animals and plants.

Our Society has had many charges laid against it; and it is fortunate that it is not ourselves who place man amongst animals and plants. We, on the contrary, are all agreed that the many phenomena presented by the study of mankind, are of such a different nature to those met with in the study of the other mammalia, that it is expedient, advisable, and indeed necessary, that he should be studied in a separate department.

It was not, perhaps, entirely a fine sense of delicacy on the part of some anthropologists, at the recent meeting of the British Association at Birmingham, which animated them to refuse reading their papers on the science of man in a zoological and botanical section: but I believe that such action was based on something far better and more rational than mere sentimentality.

I have dwelt at some length upon the opposition our Society has received at the hands of some members of the British Association. In some cases, I believe that this opposition has been given to our demands for judicious reasons. Older and wiser men than some of us are of opinion that young societies should fight their way, and make good their position step by step, and such is our intention.

I have a good reason to believe that the adverse votes of some were given rather for the purpose of stimulating us to increased activity, than from any desire to injure the cause of our science. I trust it may be eventually seen that this was the true motive for passing the resolution that there should be no special section for the science of man.

I hope our foreign associates will take care to make this view of the matter known amongst our fellow students on the continent. If we look at the matter in this light, we are under deep obligations to the authorities of the British Association. We appreciate their kindness, and thank them for their support. We in England can fully understand such motives; but I fear that they may be misunderstood on the continent. I am free to confess, that I for some time thought that the motives for opposing us were of a different nature; but I am glad now to believe that such may not be the case. We are now considered to be on our trial, both as men of science and as a scientific body.

I have long been convinced that our position in the British Association is of little or no consequence, if we only carry out honestly and truly the objects of our society. Let us remember that the British Association for the Advancement of Science forms no part of anthropological science. We are, as regards that body, mere innovators; and they are perfectly justified in seeing that we make good our title to admittance before they accede to our demands.

We shall best do this by continuing the work we have begun. Above all things, we must avoid exhibiting a slavish desire to please the magnates of science, or to court public applause.

It is a necessary law, I presume, that all young societies and young sciences should go through a period of trial, and encounter opposition from the masses of society. It is, therefore, not surprising that, during the past year, our young society has been attacked with a virulence and an energy which we could not but admire. Early in the year it became the duty of the Fellows of the Society to discuss the influence of the civilised on the uncivilised man, brought before us by Mr. Winwood Reade, in a paper entitled "On the Influence of Christian Missionaries amongst Savages." The abuse immediately levelled at the Society, by the so-called religious press of this country, was remarkable both for the vehemence of the language employed, and for the harmony which prevailed amongst the oppositionists, who united *en masse* against us. If noise and strong language could have stopped the working of this Society, there was enough of it during the time we had the temerity to discuss the influence of missionary labours.

An important question arises for our consideration on this subject. Does such a question as the one named come legitimately within the sphere of this Society? I must say a few words on this point, because I believe that there are some who consider that such a question is beyond the bounds of the science of man. The question for us to consider was, the influence of civilised on uncivilised man; and I do not presume that any one will deny that such a question comes legitimately within the sphere of this Society. If we admit this, we at once see that the only other charge which could be brought against the title of Mr. Reade's paper was, that it singled out a special class. There was certainly no special reason why the class of Christian missionaries should have been selected, more than that of travellers, traders, or colonists, who, like missionaries, come in contact with uncivilised races. The charge of a paper being more special is, to us, rather an advantage than otherwise. But nothing could be more erroneous than to assume that, because a Fellow of our Society took up the special question of the influence of missionaries amongst savages, the Society could in any way be charged with hostility to this particular class of men. This discussion illustrates many other questions connected with the science of man. There are many subjects which cannot be said to be strictly within the domain of our science; yet only by investigating these subjects can we judge of their value, as affording material wherewith to build up our edifice. The discussion on Christian missionaries was not a pleasurable excursion into this "debateable land"; the noise on that occasion was terrific, and the

tone and language entirely foreign to scientific modes of thought. Even the strong nerves of some of our own members, who had taken part in the battles of our Society during the two previous years, were somewhat shaken, and that evening they were appalled at the danger which they considered us to be in: now, however, that it is past, we may look back temperately upon that discussion, and take warning by that experience.

Let us, in any future discussion on this point, avoid if possible treating this theme in a manner repugnant to the feelings of any class. But, at the same time, we must do this in no timorous spirit of avoiding the opposition which we shall necessarily have to encounter, but simply do our duty as a scientific body, without passion or prejudice. It has been stated, on reliable authority, that the discussions before our Society have had the effect of advancing missionary societies. We trust they will, on some fitting occasion, reciprocate our good offices. This fact may also another time make the parties less vehement in their opposition to, and denunciation of, mere pilgrims—seekers after truth. A small society like our own, can have but little power against the numerous and powerful missionary organisations which exist in this country; unless, at least, we have truth on our side, putting aside our individual opinions on such questions, but admitting our right to discuss them. I would fain wish, were such a thing possible, that missionaries would calmly unite with us to investigate the matter we discussed last year. The Bishop of Natal has led the way, and I cannot but think that other missionaries will follow his example. It should be the wish of missionaries to give us all the information and assistance in their power.

We have been blamed for touching on any religious matters, and some of our well-wishers have suggested that it might be prudent to avoid all questions which in any way bear on religion. I regret that we cannot act upon this well-meant suggestion. Religion is essentially an anthropological character, and in that light we shall always have to consider it. We cannot even describe the psychological characters of the different races, without dwelling on the tendency of some to believe in monotheism, and of others in polytheism. No anthropologist, worthy of the name, can fail to observe these things, or to record them.

While, however, it is our duty to take cognisance of what men do believe, we disclaim every wish or desire to prescribe for them what they ought or ought not to believe. It is here we draw the line of demarcation; and those who take the trouble to examine it, will be compelled to avow that it is a broad and distinct one.

We are a young society, and desire to conform as far as possible to the existing rules of scientific societies; but this conformation with old-established societies must be more that of spirit than of action. Founded as our Society is on many of the rules of the Geological Society, I hope the same spirit of independence and determination to fight against public opinion exists amongst us, as existed, and even now exists, amongst some of the great champions of scientific truth and freedom of inquiry, such as Buckland, Adam Sedgwick, De la

Beche, Lyell, Darwin; and, indeed, all these men have shown that they valued the cause of truth more than public applause.

This sympathy with all true scientific workers of the day, I hope will always exist amongst us: but the working out of the administration of our Society cannot be done precisely on any existing model. Our success has been unprecedented in the history of scientific societies of this metropolis; and this success must be ascribed more to the suitability of our plan to the wants of the time than to any other cause. We must strive to imitate what is good in all societies; and we can estimate at their true value the denunciations of those whose language is of that nature which can alone be dictated by rancorous jealousy.

Great as has been the success of our parent society in Paris, it bears, as M. Broca writes me, no comparison to the rapid progress our own Society has made within so short a time. It affords me much gratification, also, to announce that the part of our plan which has been much condemned in some quarters, viz., the publication of translations of foreign works, is to be followed by our fellow students at Moscow. We must all rejoice that such is to be the case. Let us never forget that there is but one science of anthropology, although there are many languages in which that science is enunciated. The Moscow society intend to publish their own works in Russian, into which language English works are to be translated. I mention this fact with peculiar gratification, because it illustrates the appreciation of the plan of our own Society.

It is of importance, also, that we should increase our scale of usefulness by augmentation of the number of our Fellows, or we shall not long be able to retain the leading position, as regards numbers, which we now possess amongst the different anthropological societies of Europe. Our Madrid associates, although they have only just commenced their sittings, have already three hundred members enrolled. The first number of their Journal is shortly expected to appear; and altogether there is an amount of activity and zeal in this young society, which is both gratifying and encouraging to us.

Our fellow-students across the Channel acknowledge and remind us of the fact, that our opportunities for the study of anthropology are far greater than their own. The large colonial possessions of this country bring us into close contact with nearly every existing race of man. This has been going on for generations, yet to our national shame be it said, our anthropological museums are far inferior to those of the French, or even of the Danes. The state of the crania in large museums, like that of the Edinburgh Antiquarian Museum, and the Hunterian Museum at Glasgow, is simply a disgrace to our science.

When recently in Orkney, I was informed of the destruction of crania which had been found associated with stone and bone implements.* Large numbers were found at one place. The stone and bone

* See Wilson, also, who gives an account of the destruction of twenty-seven skulls in Orkney. "*Prehistoric Annals of Scotland*", vol. i, p. 120.

implements were taken, but the skulls were left to be destroyed. If such things are going on in this country, we cannot wonder at the small amount of attention and care given to the collection of crania in our colonies. It is to enable us to cope somewhat with the neglect of our science that we have organised a staff of local secretaries. Eventually, I have no doubt, this department will work well. The fact that we have yet seen but little result from it, must be attributed to a great extent to a want of a sufficient staff to work out properly a large undertaking of this nature.

Some look at our success as unprecedented up to this time; but without any desire to depreciate what we have hitherto effected, I must express my opinion that our work is still only beginning. What we have done, has, I believe, been effected by genuine work, and by a unity of action between the officers and the Fellows of the Society generally. We want now to bring our local secretaries more immediately into sympathy and action with the Society.

These things will, I have no doubt, all be effected in time. All our continental Associates look to us to utilise the enormous anthropological riches which belong to this country, and I trust we may be able to satisfy their high expectations. This must, however, be a work of time. We shall merely be able to make collections which future generations may utilise. Tribes of men are constantly becoming extinct, and we shall be guilty of neglect if we omit doing all in our power to procure sufficient typical specimens of crania while we have it in our power. The neglect I have referred to in this country is not simply a deficiency of crania, but we possess also a very limited collection of works of industry of the different races of man. If we judge of what was achieved in a few years by the late lamented Henry Christy, we shall have sufficient encouragement, to be sure of being rewarded for our labour when we once set seriously to work.

Our Library, too, possesses only a small number of books; others must be obtained with as little delay as possible. I trust that, before another anniversary, both our Museum and Library will be greatly developed. The Council have committed both the Museum and Library to Mr. Blake's entire charge, and have freed him of other duties in order that he shall be able to devote sufficient time to the Library and Museum.

I shall avoid, on this occasion, alluding to the works which have been published on the various branches of anthropology during the past year. It will now become the duty of your Librarian to keep a complete record of all books published on our science, and I have no doubt that this record will be published for the use of the Fellows. A large number of pamphlets and articles are continually appearing on the different subjects connected with anthropology; and to keep a complete record of these, together with the titles of all papers contributed to the different anthropological societies, cannot fail to assist materially those who are engaged in the study of our science. Mr. Blake, I believe, will endeavour to make this record complete from the time of the formation of our Society. While we have con-

fided the Museum and Library to Mr. Blake, we have had the good fortune to obtain the services of our late Honorary Secretary, Mr. J. Frederick Collingwood, as Assistant Secretary. I cannot but heartily congratulate the Society on having secured the services of a gentleman so eminently qualified for the office as we know Mr. Collingwood to be.

During the past year the Council have been consulted as to the expediency of forming local branches of the Anthropological Society in the chief towns of Great Britain. For the present we have advised the postponement of any such attempt. If we once begin a system of branch societies, we should endeavour to do so on an extended scale. We have had applications on the subject from India and Australia, and the time will come when we must be prepared to act in this matter. We are simply waiting for sufficient strength to carry out such a large undertaking. If we wish to keep the position we have assumed we must continue to march onward. Since our foundation, societies for the study of anthropology have been developed all over the world in a manner unexpected to many.

Having touched on a few points in connection with the development of our Society during the past year, let me now make some observations on the position of anthropology both in this country and throughout Europe. We are rejoiced to see that our science is becoming developed in this country, not only by members of our own Society, but also by many who have not yet united with us. The study of mankind has acquired a life and vitality which the leaders of some of the older scientific societies seem to think entirely disproportionate to its merits. Men of the last generation fail to see that anthropology is the science of sciences. But there is no mistaking the tendency of the age. Scientific men, like Professors Huxley and Rolleston, who, a few years ago were devoting their energies and talents to palæontology and zoology, are now aiding us in our work. Professor Huxley has been both lecturing and writing on our science.

An organisation has been started during the past year, entitled the "Anthropological Lecturing Club," whose chief office, it appears, is to attempt to popularise our science. The Anthropological Lecturing Club, like all other young institutions, will have to fight its own way in the world, and is, I believe, competent to do this without any help from myself. To those who have watched the gradual change which time has wrought in public opinion with regard to our Society, the manner in which the club was ushered into the world is full of encouragement for its future success. The attacks made on this club reminded us of the shouts of execration with which we were greeted from a portion of the intelligent leaders of public opinion in our younger days. But if this denunciation of lectures on anthropology is based on truth or justice, is it a wider application than those who attack it seem to think! I do not now feel called upon to justify an attempt to popularise either anthropology or any other natural science. I am fully conscious that, on such a point, there is a considerable difference of opinion existing amongst men of science. I am, however, free to avow myself entirely in favour of the diffusion of all useful knowledge, and even of the elements of our science amongst the thinking public. Men of this

generation can hardly remain silent and inactive when they see the evil effects of the ignorance of anthropology both in our statesmen and our politicians. The great question of "RACE" underlies the whole of their efforts, but they fail, or refuse to see it. It is melancholy to reflect that the destinies of nations are entrusted to men who look with supreme contempt on all such "vulgar errors" as race-distinctions. Perhaps the man who, more than any other statesman of our time, has shown himself incapable of seeing the facts in their true light, is the present prime minister of England. Educated in the pseudo-philanthropic school of Wilberforce and other well-intentioned men, he is ignorant of the merest elements of the science of comparative anthropology; or even of the well-ascertained and undisputed race-distinctions on which that science is based.

Upwards of fifteen years ago, one of the most eminent anthropologists of the country, declared that there would be a Negro revolt in Jamaica. I quote Dr. Knox's own words: * "From Santo Domingo, he (the Negro) drove out the Celt; from Jamaica he will expel the Saxon; and the expulsion of the Lusitanian from Brazil is only an affair of time."

These words appear to the mind of the vulgar prophetic; but they were based on sound theories, ignored by nearly all our then statesmen. Some of our countrymen, however, do not spend their lives amongst diverse races of man without learning something practical as to their psychological and moral characteristics. In the recent outbreak in Jamaica, the Negro found himself overmatched; and we anthropologists have looked on, with intense admiration, at the conduct of Governor Eyre as that of a man of whom England ought to be (and some day will be) justly proud. The merest novice in the study of race-characteristics ought to know that we English can only successfully rule either Jamaica, New Zealand, the Cape, China, or India, by such men as Governor Eyre.

Such revolutions will occur wherever the Negro is placed in unnatural relations with Europeans. Statesmen have yet to be taught the true practical value of race-distinctions, and the absolute impossibility of applying the civilisation and laws of one race to another race of man essentially distinct. Statesmen may ignore the existence of race-antagonism; but it exists nevertheless. They may continue to plead that race-subordination forms no part of nature's laws; but this will not alter the facts. All who have candidly studied the question know that, if there is one truth more clearly defined than another in anthropological science, it is the existence of well-marked psychological and moral distinctions in the different races of man.

The sublime contempt which a portion of our politicians have for the opinions of those who have studied the Negro all their lives, would be amusing, were it not melancholy and pregnant with consequences of the most momentous nature. I allude to these facts from this chair because the next generation will then be better able to understand the gigantic work which we have before us. We can easily under-

* "Races of Men", 1850, p. 456.

stand why those powerful organisations called missionary societies get up public meetings, condemning such men as Mr. Eyre, in unmeasured terms of abuse, but we cannot understand statesmen pandering to the prejudice and passions of the mob. If missionary societies have such a power amongst our ignorant masses, how can we wonder at their influence on men like the Negro, who have little to guide them, save passion and feeling?

I have alluded to Earl Russell once, and I regret to have to do so a second time. The present case is one on which I am sure I shall gain the undivided sympathy of the Fellows of this Society. I wish to take this opportunity of pleading the cause of a poor neglected Fellow of this Society, who has the misfortune to be in the service of the present government of Great Britain, and whose name is Captain Cameron. The Christian monarch who now holds our fellow-student in chains, has rendered all who have the name of Englishmen utterly contemptible to his countrymen. Delay to the African mind is victory. We are now at the mercy of the King of Abyssinia, whether we shall ever see our friend again. A little prompt action on the part of our then foreign secretary of state, might have saved him from all his sufferings, and the name of Englishmen from disgrace. It may be too late now to save Captain Cameron, but I think I do not go beyond the bounds of the President of this Society when I publicly proclaim and denounce the apathy which has existed in the government of this country with regard to him.

Should Captain Cameron again fortunately return to us, he will be able, perhaps, to add a few more facts to what is already known with regard to the African race; but his experience, we suppose, will receive just as much attention as though he had never left his native country. A Fellow of our Society—Dr. Jules Blanc—has gone to attempt his rescue with Mr. Rassam, and I sincerely trust their efforts may be crowned with success.

Is it our duty to “rest” or be “thankful,” whilst such things are going on? Is it not rather incumbent on us to raise a protest against the manner in which well ascertained facts with regard to race distinctions are argued by those whose duty it is to become acquainted with them? If this Society fails to publish to the world all the facts at present known with regard to this question, she will not be discharging her duty or fulfilling her place in the development of true scientific principles for human guidance. Let us not “rest,” but rather arouse those whose duty it is to carry out our deductions, to a sense of their responsibility, if they neglect truths so clearly demonstrated as race-antagonism and race-subordination can be. In these two phrases are summed up great and permanent truths. Neither race-antagonism nor race-subordination was invented by us; they were simply phrases to express truths, which were as true thousands of years ago as at the present day. The existence of both is demonstrated by facts. It is an error to suppose they are mere hypotheses; they are, on the contrary, theories founded upon all authentic history, and upon well ascertained facts.

The time will come—whether we shall live to see it I know not—

when a knowledge of the science of anthropology will be required of all seeking appointments in our colonial or foreign possessions, and when our statesmen will be required to act on the deductions of our science. The time, too, will surely come, when it will be made a branch of national education ; when the professor of history in our universities shall become the professor of historical anthropology ; and when the professor of political economy shall become the professor of comparative anthropology.

Opinions may differ as to the time required to effect such changes ; but our science cannot fail ere long to be recognised in some form, even by those who are most opposed to what they suppose to be its teaching. These are things, however, of the future, and I only mention them now to urge all to renewed exertions on behalf of our sub-lime science. If we but once realise not only the grandeur, but also the practical advantage of anthropology, we shall no longer look with wonder at its development, but be ready to put our shoulder to the wheel. There are yet hundreds, if not thousands of men in this country who could render our science good service if they only realised its scope and practical bearing.

Our Society at present is only the nucleus round which we may all work according to our lights. It is true that we have refused many who have sought admission to us ; but we have only done this when we considered that such applicants were not likely to render service to the cause of science. The different shades of scientific opinion which are now represented in our Society, form the best guarantee for the free and full discussion of the topics brought before us. It is gratifying for us to know that the resignations this year have been relatively fewer than on any previous year. A young society is always liable to lose a large number of its early adherents. There are a large number of restless minded men who seek admission into any young society, hoping to find a congenial sphere for the display of their surplus energy, and wherein they can ventilate their individual crotchets. We have had some such amongst us ; but they were not a class likely to aid our Society or our science. Scientific societies are not intended to be theatres for the display of the eccentricities of their members, or for the ventilation of individual crotchets or crudities, but for the real advancement of science.

A Presbyterian divine has recently well observed :* " This is pre-eminently an age of science, and the culture of this age is emphatically scientific. Men may, therefore, be great classical scholars, and possessed of the highest culture of a certain sort, but unless they possess the training, or are imbued with the spirit of science, it is the culture of another age, not of this. Now all who possess such a training and spirit, believe in the undeviating constancy and order of nature's methods or laws. Science could not proceed a step without such a belief." Our Society seeks only such fellow-labourers as are really imbued with this spirit ; for, unless they are so, they cannot aid the

* " Divine Providence in its Relation to Prayer and Plagues." By Rev. James Cranbrook. Edinburgh : 1865.

cause of true science. We desire men who can be both logical and consistent; for it is by such alone that science can be advanced.

We want all who sympathise with our labours; and we welcome to our ranks all real seekers for truth, and all advocates of free inquiry. The real enemies of truth are those who would stifle inquiry, and desire to temporise with popular ignorance, arrogance, and superstition. Mankind have nothing to fear from the study of themselves. On the contrary, they will gain much by a better knowledge of their natural relations to one another, and to the rest of the organic world. While, however, we invite others to join us, we must remember that the work of this Society and the development of anthropological science in this country now devolves on ourselves. Let us all be stimulated to renewed exertion to forward the cause of truth during the coming year. Let each man use the whole of his individual influence and talent on behalf of the common cause, in order that on our anniversary we may be able to rejoice, not only in continued but in increased prosperity.

The address was received with much applause; and, at the conclusion of it, the thanks of the meeting were warmly accorded to the President, on the motion of Mr. C. R. DES RUFFIÈRES, seconded by Mr. J. MACCOLLELLAND.

The PRESIDENT returned thanks; and at the same time announced that, on Thursday next, the committee for drawing up instructions for the Local Secretaries would commence sitting, and he trusted that suggestions would be given to them by the Fellows generally, as it was a matter of considerable importance that the instructions should be comprehensive, and be carefully drawn. He also mentioned that Mr. Collingwood would enter on his duties as Assistant-Secretary from that day.

The Scrutineers then reported that they had examined the ballotting papers, and found that the officers proposed for the next year had been unanimously elected, according to the following list:—

President—Dr. James Hunt, F.S.A. *Vice-Presidents*—Capt. R. F. Burton; Dr. Berthold Seemann; T. Bendyshe, Esq.; *Dr. R. S. Charnock*. *Secretaries*—W. Bollaert, Esq.; H. J. C. Beavan, Esq. *Foreign Secretary*—A. Higgins, Esq. *Treasurer*—Rev. Dunbar I. Heath. *Council*—S. E. Collingwood, Esq.; J. W. Conrad Cox, Esq.; Dr. G. D. Gibb; *J. Meyer Harris, Esq.; Henry Hotze, Esq.; G. W. Marshall, Esq., LL.M.*; The Viscount Milton; G. North, Esq.; L. O. Pike, Esq.; G. F. Rolph, Esq.; C. R. des Ruffières, Esq.; T. Tate, Esq.; W. Travers, Esq.; W. S. W. Vaux, Esq.

The thanks of the Society were given to the Scrutineers, on the motion of Dr. BEIGEL, seconded by Mr. PINKERTON, and the meeting adjourned.

* New members in italics.

JANUARY 16TH, 1866.

JAMES HUNT, Esq., Ph.D., F.S.A., F.R.S.L., PRESIDENT, IN THE CHAIR.

THE minutes of the previous meeting were read and confirmed.

The names of the following gentlemen, who had been elected, were read :—

Fellows—F. E. Davis, Esq., 53, Leicester Square, Bayswater ; Commander Bedford Pim, R.N., Belsize Square, Hampstead.

Corresponding Member—Dr. Pott, Halle.

Local Secretaries—W. T. Pritchard, Esq., F.A.S.L., Mexico ; Dr. H. F. Hance, Whampoa ; A. H. Wilson, Esq., Pará.

The presents to the library and museum were also announced, as under :—Bateman's Catalogue of Antiquities ; Catalogue of Victoria Exhibition (K. R. H. Mackenzie, Esq.). Verba Nominalia (Dr. R. S. Charnock).

The PRESIDENT said that, before proceeding with the business of the evening, he wished to make the important communication that Mr. William Thomas Pritchard, F.A.S.L., F.R.G.S., late Her Majesty's consul at the Fiji islands, had been appointed special commissioner from the Anthropological Society of London, to inquire into the causes of the recent negro insurrection in the island of Jamaica. The well known character and ability of Mr. Pritchard, was a sufficient guarantee that he would furnish the Society with a true and faithful record of the anthropological causes of that insurrection. He felt assured, therefore, that the meeting would be glad to hear that that gentleman had undertaken so important a mission.

The following paper was then read.

Some Remarks on the Origin, Manners, Customs, and Superstitions of the Gallinas People of Sierra Leone. By J. M. HARRIS, Esq., F.A.S.L.

(This paper will appear at length in the *Memoirs*.)

The tribe or people now known under the name of "Gallinas," in consequence of their being located upon the banks of the river so called by the Spanish and Portuguese slave-traders, appears to be an offshoot of the great Mandingo tribes ; and probably migrated from the interior, beyond the Koronkho country, to the seaboard, about two hundred years ago.

The Gallinas people still at times use the bow and arrow, and appear to have retained many of the customs and habits of their ancestors, who were probably pure Mandingoes.

These people have apparently for many years acted as brokers to the slave-dealers, and for a long period depended entirely upon the slave-trade for means of obtaining food, clothing, etc. ; and it is entirely within the last few years that they have turned their attention to work. The soil of the Gallinas country is sandy, barren, and unfit for cultivation ; and it is a mistake to suppose that this country produces any article of export, for it is the Crim country on the one side, and Goorah on the other, where the produce is collected. The cloths are made principally in Kissy, and find their way down to

the coast as a medium of exchange for salt and other commodities. There are very many of the Gallinas people who carve wood, palm-nuts, etc., and who make wooden spoons and plates, as well as iron-work of different kinds.

As a rule, the Gallinas people are inveterate gamblers; they play various games, the principal one being called by them *warri*, but it is common to nearly all parts of Africa under different names. It is played with a board having twelve holes, and forty-eight seeds. One of these boards was exhibited, and showed the style of carving executed by the Gallinas people. They have many other games besides *warri*; and they frequently play until they have lost everything they possess, even placing their wives and children in pledge, and, as a last resource, stake their own liberty on the chances of the game.

The Gallinas all, more or less, profess Mohammedanism; and the chiefs usually send their sons into the interior for several years to learn the Mandingo tongue, to enable them to read the manuscript Koran used in the country. They are excessively superstitious, and have almost unlimited belief and confidence in anything made by any bookman—that is, people who have a written language, as Mohammedans, or Europeans, Americans, etc.

The author concluded with an interesting account of the *porra*, a religious and political institution.

The thanks of the Society having been given to Mr. Harris,

Dr. SEEMANN remarked on the curious custom which appeared to exist among the Gallinas, of the women having no intercourse with their husbands until the children to whom they had given birth were three years old; and he observed that a similar custom prevails also among the natives of the South Sea Islands.

Mr. PRITCHARD confirmed the statement of Dr. Seemann, by observing that the practice of the women not having intercourse with their husbands while suckling their children, prevails in all the islands of the South Pacific. The practice is connected with polygamy, for at those times the men paid attention to their other ladies.

Dr. BEIGEL inquired what was the manner in which the men and women of the Gallinas people dressed their hair?

The Rev. DUNBAR HEATH asked whether reverence of animals was observed in other parts of Africa, especially whether reverence was paid to animals that had particular marks? He said he asked the question because, in ancient Egypt, it was the custom to worship animals that were marked in a particular manner. With respect to the games mentioned in the paper, there was a similarity between them and some of the games of the ancient Egyptians; and the way in which the Gallinas went to war and returned with slaves, was also like the practice of that ancient people. Observation of the habits and customs of these African tribes was important, as it might serve to throw light on their connection with the ancient inhabitants of Egypt.

Major OWEN, referring to that part of the paper which alluded to certain ceremonies practised on the young women, inquired whether the clitoris itself was excised and removed?

Mr. PRITCHARD said he was acquainted with places in the Pacific where the same name was applied to the operation on females as to circumcision in men; but the custom was not general in the Pacific islands, and in the cases where it was practised it was not known generally among the tribe. He could not learn any other motive for the operation than the prevention of the woman from having illicit intercourse with the man, as it was supposed they could not have connection with a man after the operation was performed. A piece of sharpened bamboo was inserted, and the parts were wounded at random, and a considerable flow of blood took place. The girl operated on was made to believe that it rendered her incapable of having children. In some islands on the Pacific, the hair was eradicated from the labia; he could not obtain from the natives any precise information as to these customs.

Mr. C. CARTER BLAKE observed, with reference to this peculiar custom, that the practice of amputating the clitoris existed among the ladies of ancient Rome, as any reader of Martial's "Epigrams" well knew. With respect to the three skulls which Mr. Harris had placed on the table, and presented to the Society, he observed that one of them, belonging to the Vey tribe, was superior to the usual development of the skulls of natives of the Gold Coast. The second was the skull of a Goora, believed to be a tribe of the Gallinas. It was an interesting skull, being higher in the palate than most negro skulls, and the foramen was rather more forward. The third skull was, however, the most interesting. It was that of a Kruman, one of a tribe of African negroes who are readily acclimatised, and they are commonly carried in European ships to act as cooks. The specimen on the table was, however, a very debased skull, as regarded its animal character; it was, in fact, almost of as low a grade as the skull of man could attain. It was the second lowest of the collection in the Society's Museum. The other one was that of an Australian, and in whatever light it might be considered—whether as approaching the missing link between man and the lower order of animals, or otherwise—it was very remarkable. The skull on the table was particularly interesting, because the coronal suture had a tendency to become connate, and along the inter-parietal suture there was a distinct projecting ridge. In the collection of the Society, and in that of the College of Surgeons, there were skulls in which similar ridges were distinctly developed, but it was a curious fact that this was the first negro skull he had observed which presented the same character to such an extent as in this skull.

Dr. BEIGEL said he did not perceive that the coronal suture had any tendency to come into connection near the parietal bones. He did not conceive that the ridge alluded to was prominent enough, as to be of great importance, for similar elevations were to be seen in European skulls. For his own part, he did not believe there was such a close connection between the form of the skull and the capacity of the individual, as some persons supposed; but that was a subject on which he would dwell at another time.

Mr. HARRIS, in reply to the questions and remarks of the previous

speakers, said that the Gallinas use combs for their hair; they use combs with fine teeth, which are about the length of a man's finger. With regard to their reverence for animals, he said that one tribe did not eat goats, and that others reverence alligators. He mentioned the fact, that an old man had an alligator that was quite tame, and fed out of his hand. With regard to the Poorah, it was an institution somewhat similar to freemasonry, and those who were initiated into it, understood one another by signs not known to the rest of the tribe. It was originated, he believed, for the purpose of making laws, all of which were settled in the bush. As to the skulls, one was that of a Vey; his father was a native of Kissy, situated about 200 miles in the interior, and his mother was the descendant of a white man. He (Mr. Harris) knew him well. He was a man of great bravery. He was killed in a skirmish, and fought with so much valour that he received four cuts before he was killed. The Goorah skull was that of the king of the Goorah people, whose country is about sixty miles from the coast; they are civilised, and carry on many manufactures. The other skull, whatever might be its characteristic developments, was that of an intelligent man who had a very good temper. The Krus are considered to be the most intelligent of the negro tribes.

The following paper was then read:—

Remarks on Genealogy in connexion with Anthropology. By GEORGE W. MARSHALL, LL.M., F.A.S.L.

(This paper will appear at length in the *Memoirs*.)

This paper was professedly suggestive of the value of the study of genealogy to anthropological science. In discussing the means which a knowledge of genealogy affords us of becoming better acquainted with the history of mankind, and with the origin of different nations, Mr. Marshall observes, that the study of genealogy is a passion inherent in the whole human race, whether living in a barbarous or civilised state, and accounts for this taste by mentioning those natural causes which in the first stages of civilisation place one man above his fellows. The value of genealogy, as tending to elucidate the physical formation of man, as well as his mental capacity, is instanced in reference to consanguineous marriages, family resemblances, hereditary diseases, and such like. The same characteristics are observable in animals as in man. The chief difficulty in the way of the anthropologist who would use genealogy as a means of studying man accurately, is that of certainly ascertaining pedigrees for any length of time; this defect is now being remedied, at least for future generations, by a more extended system of national registration.

The paper concludes by defining genealogy, as connected with anthropology, as "the science of investigating the causes which lead to the intellectual and physical development of man, or contribute to his decline, so far as he is influenced by the condition of his progenitors." Hitherto genealogy has not been scientifically studied; ere long we hope to see it receive that share of attention from sci-

entific men which, if Mr. Marshall's suggestions be of any value at all, it appears to merit.

The PRESIDENT, in proposing the thanks of the Society to Mr. Marshall, said they were particularly indebted to him for introducing that subject to their notice. They had that night heard two excellent papers, by Fellows of the Society, who had contributed for the first time, and he trusted they would be the forerunners of many others from them. The course of investigation suggested in the second paper had not hitherto received the attention to which it was entitled, and they should be bound in future to give it their best consideration. With regard to the number of ancestors which it was asserted a man might have, he considered the calculations about the percentage of blood a mistaken notion. It was not a question of mixture of blood in arithmetical proportions, but it was a physiological question entirely, as to the increase or propagation of race. The effect of intermarriage of relations was also a question of physiology. He regarded the collection of national portraits as most interesting in an anthropological point of view, as it would afford the opportunity of comparing the features of those who had distinguished themselves in times past with those of the present day. Historical anthropology was an interesting branch of the science of man, and he hoped the suggestive paper read by Mr. Marshall would stimulate further inquiry, and be the means of collecting facts that would throw more light on the subject.

Dr. BEIGEL observed that genealogy, in the sense defined by the author of the paper, was in reality anthropology. What had hitherto been considered genealogy was nothing more than the determination of what man was the ancestor of another; what relation, in short, Tom was to Harry. But when they proceeded to consider what the physical condition of Tom was, that subject of inquiry became anthropology. In one sense, indeed, the science of anthropology might be considered to embrace all sciences, and according to the definition of genealogy given by the author of the paper, it would certainly be comprised in the science of man. It was said to have been proved that there is not an innate superiority in one man over another, and the interest of genealogy arises from the knowledge gained by it of the influences that make one man superior to another. If the author inquired of the gentleman near him (the Rev. Dunbar Heath) who was his ancestor, that gentleman would tell him that his ancestor was a monkey; it became an interesting point to be ascertained, therefore, what changes had occurred and what influences had been exercised to make a monkey so eloquent a speaker as Mr. Heath. He thought that there was something innate in all races, but that there must be special circumstances to raise one man into a higher state of knowledge than another.

Rev. I. DUNBAR HEATH said, that having been referred to as the descendant of the most ancient classes, the quadrumana, he felt bound to make some remarks on the question. He could not quite agree with Dr. Beigel in his definition of genealogy. In considering the question, they should view the influence of lineal descent, as well as

other influences distinct from it. He did not agree with the President in the opinion that by regarding the subject physiologically, they were prevented paying any attention to it arithmetically, as denoting the degrees of relationship; he thought that the two methods of looking at it might be properly combined. There are external influences which commence with the quickening of the embryo in the mother's womb, and there is something else which influences the character. The external life of the mother, independent of the father, had no doubt great influence, but was there not something more than that? Was there not something in the race? In the formation of character, the race and the external circumstances should be both considered. Genealogy would afford help in making the investigation, and in that manner genealogists would work for them as anthropologists.

Mr. MACKENZIE said he differed from Dr. Beigel in considering genealogy the same as anthropology, for he thought there was the same difference between them as there is between topography and geography. It was carrying out in individual characters the investigations which ethnologists applied to races, and anthropologists pursued in respect to man as an organised being. It was known, for example, that certain parasites were generated in certain families, and it was important to trace such peculiarities to their source. It was a fact that that peculiarity exists, and among some families high in the scale of social life, and to a degree to make it very unpleasant. Genealogy might assist anthropology in the inquiry to what source that peculiarity is to be traced, and by that means they might remove from some aristocratical families the disgrace of having originated such diseases.

Mr. C. CARTER BLAKE observed that the paper referred to several topics of great interest. Among others, it referred to the results of consanguineous marriages, which subject had been often considered by the Anthropological Society of Paris, and some papers bearing indirectly on the subject had been read and well discussed in the Anthropological Society of London. He regretted that so few facts had been brought forward by the author of this paper as to the results of consanguineous marriages, and he should be glad to have some such facts adduced on a future occasion. In the observations that had been made on the paper, he was surprised to hear Mr. Mackenzie repeat an anecdote that had no foundation, relating to the Percy family, who were said to be infected with the parasite *Pediculus hominis*. He believed that absurd legend rested on an equally absurd slander in the play of the *Merry Wives of Windsor*; and that the whole affair was utterly ridiculous, and unworthy to be noticed at a meeting of the Anthropological Society. They were in want of facts also on the subject of human hybridity, which it was very desirable should be obtained. In Paris a great number of facts bearing on those subjects had been collected, also at Moscow and in southern Russia; and the inquiries that had been instituted, he hoped, would be carried out in detail, and that the results would be communicated to the Anthropological Society of London.

Mr. GOLDSMID said they could scarcely expect many facts to be stated in a paper that was merely suggestive ; and he thought that the objections urged by Dr. Beigel—that immediately they went beyond the strict limits of the subject of genealogy, they entered into a larger and inconsistent field of inquiry—would apply to almost everything. No science was so much mixed up with the general nature of man as anthropology, therefore it must be almost necessarily connected directly or indirectly with physiology and other natural sciences. The study of genealogy, he considered valuable to the anthropologist, as it tended to show what influences that affect man's nature may be said to depend on external circumstances, and what are innate properties. One fact deserving of notice, as shewing this, he would mention, the thickness of the lip of the members of the House of Hapsburg. They had all of them been subject to the same social influences, and that peculiarity was observable in almost every branch of the family. Another instance was that of a gentleman belonging to a great aristocratic family, who had one white lock of hair, though his hair was generally dark, which peculiarity had been transmitted to him from a distant ancestor. He mentioned these cases to show that the author of the paper had opened a field of inquiry to anthropologists, from which many extraordinary facts bearing on the study of man might be elicited.

Mr. PRITCHARD stated that among the natives of the Pacific he had met with individuals who had a white lock amongst the surrounding dark hair, which was said to be hereditary. With respect to the question of consanguinity, he stated that there are many of the small or *atoll* islands in the Pacific where the natives trace back their origin through three or four hundred years to the few persons who, drifting from their homes, originally landed there. The descendants of these persons intermarried, and all the inhabitants were related to one another ; yet, speaking generally, there were no signs of madness or of any other serious mental affection among them.

Mr. MACKENZIE denied that he had made any special allusion to the Percy family when speaking of parasites. He believed that such diseases prevailed in a great many other families, but not in that one alone.

Mr. MARSHALL, in replying to the observations on his paper, said he meant it to be suggestive merely, and therefore he had not thought it necessary to mention more facts. He thought Dr. Beigel had rather misunderstood his meaning in his definition of genealogy, which, in an extended view, includes every kind of historical study. With regard to the facts adduced by Mr. Mackenzie, of physical peculiarities running in families, he had no doubt that many such instances as mentioned exist, but insanity and scrofula, which are also transmitted in families, were much more important subjects for consideration. Many such examples might be adduced, and a very remarkable one in a family even higher than that of Percy. Hereditary personal resemblances were well known to exist ; and in addition to the instance of the Bourbon chin, alluded to by Mr. Bollaert, he might mention the strong resemblance of the Prince of Wales to the face of George

III, as stamped on the coins of his reign. The family histories and portraits of many English families afford numerous examples of the same kind. He remarked, in conclusion, that the great families in this country claim to be descendants from many sources, but that there are only one or two who claim to be descended from the Danes.

The PRESIDENT announced that the Council had decided to hold an extra meeting, at which Captain Bedford Pim would read a paper on the causes of the Negro insurrection in Jamaica. In consequence of its having become known that Captain Pim was about to deliver an address on that subject, there had been a great demand for admissions, and it would be requisite, therefore, to hold the meeting in a larger room.

The meeting then adjourned.

SPECIAL ORDINARY MEETING AT ST. JAMES'S HALL

FEBRUARY 1ST, 1866.

JAMES HUNT, ESQ., PH.D., F.S.A., F.R.S.L., PRESIDENT, IN THE CHAIR.

The minutes of the last meeting were read and confirmed.

The following list of members elected since the last ordinary meeting was read:—E. Charlesworth, Esq., F.G.S., Whittington Club, E.C.; I. E. B. Cox, Esq., Middle Temple, E.C.; James Gowans, Esq., 16, Salisbury Street, Edinburgh; David Lloyd, Esq., 26, Birchin Lane, E.C.; Nidda Genthe, Esq., LL.D., 8, Bedford Place, W.C.; Monsieur E. G. Mèry, Gaboon, West Africa; H. Mills, Esq., Arlington Place, Broughton Lane, Manchester; John Robbins, Esq., 372, Oxford Street; T. Valentine Robins, Esq., Sidney Cottage, Halebank, Ditton, Liverpool; John Taylor, Esq., 316, St. Vincent Street, Glasgow.

The following Local Secretaries were elected:—R. B. N. Walker, Esq., F.A.S.L., Gaboon, West Africa; Irwin E. B. Cox, Esq., B.A., Hertfordshire.

A paper was read by Commander Bedford C. Pim, R.N., F.A.S.L., entitled "The Negro at Home and Abroad."

In the discussion on the above paper the following gentlemen took part:—Messrs. Aria, Semper, Winwood Reade, Hibbert, Liggins, Harris, and Seemann.

[A full report of the proceedings of this meeting will be found in a special number of the *Popular Magazine of Anthropology*.—ED. J.A.S.L.]

FEBRUARY 6TH, 1866.

JAMES HUNT, Esq., Ph.D., F.S.A., F.R.S.L., PRESIDENT, IN THE CHAIR.

The minutes of the previous meeting were read and confirmed.

The names of the following gentlemen who had been elected Fellows and Local Secretaries of the Society were then announced. Francis Campin, C.E., 6, Salisbury Street, Strand; Thomas Edmondston, Esq., 6, Albany Street, Edinburgh; Benjamin Hinde, Esq., M.D., Tarbert, co. Kerry; Louis Henry Mignot, Esq., 50, Upper Harley Street, Cavendish Square; W. S. Pendon, Esq., M.D., 13, Wellington Street, Belfast; James Pinnock, Esq., The Hawthornes, New Road, Hammersmith; Capt. James Smyth, 69th regiment, North Camp, Aldershot; A. Walker, Esq., Preston, Kirkbean, Dumfries. *Local Secretaries*:—Theodor A. Rosenbusch, Esq., Sierra Leone; George Mott, Esq., Morningside, Victoria.

Mr. BLAKE announced that the following presents had been received, and thanks were voted to the donors. Photographs of Australian Aborigines (John Fraser, Esq.); Les Statues du Priape (W. Eassie, Esq.); On the Feeble-minded and Idiotic (Dr. P. M. Duncan); On the Mammary Glands of *Echidna Hystrix* (Prof. Owen).

Mr. BEAVAN said, A letter has been received by the Hon. Sec. from Mr. G. Jasper Nicholls, our Local Secretary at Oude. In this communication Mr. Nicholls desires to inform the Society that he purposes investigating the country stretching from the Santhal Pergunnas in the central provinces to the ancient boundaries of the Telenga country. This expedition will doubtless be of great use to anthropology; but Mr. Nicholls requests direction and information concerning those points especially to be noted by him. The forthcoming instructions to Local Secretaries will, however, contain all the suggestions likely to be needed, and from Mr. Nicholl's character for perseverance and energy, there is no doubt but that he will do justice to the Society's inquiries.

The PRESIDENT observed, that the preparation of instructions for the Local Secretaries of the Society was a matter of considerable importance, which was now under consideration, and when they were completed a copy of the instructions would be forwarded to Mr. Nicholls, and would no doubt give him the information he required.

Mr. BOLLAERT read the following paper communicated by Dr. Hyde Clarke:—

Notes on the People inhabiting Moravian Wallachia. By HYDE CLARKE, Esq., LL.D., Loc. Sec. A.S.L., President of the Academy of Anatolia, Member of the German Asiatic Society, Society of Northern Antiquaries, etc.

Several of the races in Turkey are much distributed, and the Wallachians constitute a well-marked example. In the Roumelian border they are found mixed in groups and spots with Albanians, Slaves, etc.,

and they penetrate among the Magyars and Slavonians. When in Wallachia I heard some interesting traits of the way in which a community of feeling and intercourse is kept up among the scattered members, and the way in which this distribution affects the various dialects.

My attention has been called to the publication by M. D. P. Martziano in Wallachian, of an article on Moravian Wallachia, which, however, I cannot here procure, but of which there is a long notice in the *Journal of Constantinople*. As the *Bucinal* and the *Journal* are equally inaccessible to English readers, I have thought some account may be desirable.

Wallachian Moravia or Moravian Wallachia is a district in the east of Moravia among the mountains in the head-waters of the Lubina, a feeder of the Oder, and of the Beciva, a feeder of the Morava, and so of the Black Sea. The population is about 50,000 or 60,000, and the chief town is Roznau, with 3,000 inhabitants, a bathing place. Walachish Mezeritsch is a small town.

The people are recognised by the Moravians as belonging to an alien race, but they speak Slavonic. Their classification has not yet been decided. M. Martziano having gone to Roznau for the benefit of his health, was struck by the appearance of being among a Wallachian people, and he has applied himself to study their relations.

Of the history of the people nothing is known. In his attempts to determine the classification by the philological method, he appears to have been baffled; for, notwithstanding a determined analysis of the local dialect, he has not been able to bring forward any evidence against its Slavonic character. He therefore applied himself to physical characteristics, and he affirms that these are distinctly Wallachian, particularly in the beauty of the women. He has further applied himself to the race features, and upon these he greatly relies as confirmatory of a Wallachian type. As to what he says of the pronunciation being more melodious than is usual among Slaves, this appears to be of very doubtful value. He affirms that the popular legends and songs confirm, but of this we do not as yet know the evidence. He says their habits and clothing are distinctly recognisable; and this last feature really marks the Wallachians. Their mode of feeding and habits generally he identified, and he observed a particular antipathy towards the Slaves. What he strongly relies upon, however, must command the attention of all who know Wallachia, and that is what is euphuistically described as the little taste the women have for sacrificing to Vesta. This must be acknowledged as a striking evidence of identity.

With regard to this characteristic it may be observed, that late advices represent the Wallachian *coup d'état* government as about to restrict the licence of divorce with a view of purifying the country, a measure of questionable morality, as it may break down the last barrier of decency, for it is believed there may be women in Wallachia who are satisfied with only so many husbands as the liberty of divorce affords them, and such moderation could no longer be legitimately gratified.

On the motion of the PRESIDENT the thanks of the Society were voted to Dr. Clarke.

Mr. CARTER BLAKE read the following letter from Gaboon :—

“ Gaboon, October 2, 1865.

“ MY DEAR SIR,—As a ship sails for Liverpool direct to-morrow, I avail myself of the opportunity to forward to the Anthropological Society a Fan shield and nine Fan spears, which my agent in Liverpool will send on to you, and which I trust may safely reach you. I had every hope of sending, per same opportunity, the skeleton of an Mpongwe, but, during my absence in search of a gorilla, the bush in which it lay was fired by the people (as is their wont in the dry season) and the skeleton was completely destroyed. However, I trust to have the pleasure of sending you something better in a month's time, as I go away the day after to-morrow on a shooting excursion, during which I hope to pick up something, and afterwards I go to Camma.

“ Very truly yours,

“ R. B. N. WALKER.”

Mr. H. J. C. BEAVAN then read a paper : “ Notes on the Races inhabiting Spain,” which will appear at length in the *Memoirs*.

The paper commenced with a short account of the various races and crosses of races in Spain. The author divided them into four distinct classes ; the Spaniards proper, the Basques, the descendants of the Moors, and the Gitanos. The Morescoes (or descendants of the Moors) are to some extent of pure blood, but the great majority of them have intermarried with Spaniards. The next point touched on was the general character of the inhabitants ; and here the author quoted remarks from Swinburne, Zamacola, Serviez, and the few other writers who have made the people of Spain their study. A short notice of the Basques and their language followed ; and in conclusion the author expressed a hope that we should ere long have better opportunities of studying the anthropology of Spain, especially since the formation of an Anthropological Society at Madrid.

“ In concluding these few remarks,” he added, “ I must express a hope that ere long we may have some really useful and reliable information concerning anthropology in Spain. The field is a new one ; it is rich in many ways ; and I think, with time and attention, that a large number of facts may be obtained which will be of service to our Society in the prosecution of its studies of the science of man.”

The thanks of the meeting having been given to Mr. Beavan for his paper,

Mr. C. CARTER BLAKE read the following communication on the subject from Dr. Charnock :—

Dr. Charnock said,* that to arrive at an accurate knowledge of the peoples of Spain it would be as well to look somewhat into its early history. The earliest inhabitants of the Peninsula appear to have been the Iberians and Celts. At an early period the seaports and

* Printed from Dr. Charnock's MS. by order of the Council.—ED.

mines attracted the Phœnicians and Carthaginians, and the former are said to have founded Cadiz at least 1000 years B.C., and several colonies were afterwards formed upon the sea-coast, not only by them, but also by the Greeks. Many traces of the Phœnicians and Carthaginians are still found in existing local names in Spain; among others, Cartagena, Cordoba, Henares, Malaga, Seville, Soria, Tarra-gona, Xeres. There are also other names, which, although not of Phœnician or Carthaginian origin, are probably derived from the Hebrew. Among these are Escalona, Maqueda, Noves, and Yepes or Jepes. Spain was next conquered by the Romans after a resistance of two centuries. In the fifth century, the Peninsula was overrun by the Goths, who were, however, driven from most parts of it by the Moors in 711. For more than seven centuries the Christians were engaged in continual warfare with the Moors, from which state the country was delivered by the conquest of Granada, by Ferdinand and Isabella in 1492. This was followed by the pillage and expulsion of the Jews, who had possessed themselves of most of the commercial riches of the country. From the sixteenth century up to 1833 Spain was divided into large provinces, having mostly the title of kingdom, when it was partitioned into forty-eight smaller provinces, except Navarre and the three Basque provinces, which remain unchanged, and possess peculiar privileges. There can be no doubt that many alliances took place between the Moors and the Spaniards, and that some of the best blood of Spain is of Moorish origin. It is in the south especially that the manners and physical characteristics of the people announce their Moorish descent. There is no doubt also that there is a large infusion of Jewish blood. The Valencians are a gay, lively, and agreeable people, and very fond of enjoying themselves. The Murcians, on the other hand, are heavy, gloomy, and indolent. The inhabitants of La Mancha resemble much those of New Castile; they are, however, more serious and gloomy, and are a laborious and very respectable people. It is said that although many nations speak a patois, or half-a-dozen different patois, they are generally able to understand one another, but that such is not the case in Spain. The inhabitants of many English counties would have great difficulty in understanding each other. Compare, for instance, the dialect of Yorkshire with that of Cornwall, and both with that of the west end of London. In Britany the country people speak no other language than the Celtic, and are not understood by the rest of the French people. In Bearn the Basque is spoken; and Normandy, Languedoc, Provence, and the Limousin have their several patois, which are scarcely intelligible beyond their respective provinces; whilst it is almost as difficult for the peasantry of Austria as it is for the French people themselves to understand the German spoken by the Prussians.

According to Larramendi, 1951 Basque words are found in the Spanish, and from it the Greek and Latin have derived many words. Mayans asserts that the Spaniards have only borrowed a few words from the Arabs, whilst Conde thinks the Spanish should be regarded as a dialect of the Arabic. Another writer is of opinion that the

proportion of Teutonic words in the Spanish greatly exceeds those of Moorish origin. It has also been stated that the words of Celtic origin are as numerous as those from the Basque; but that none of these statements are correct will be evident to any one who takes the trouble to compare the Spanish with the other European languages. The ground work of the language is, without doubt, Latin. The next important element is the Arabic, from which it has derived several thousand words. It has also borrowed many words from the Greek and some from the Phœnician, the Hebrew, and the modern European languages; whilst to the Basque, Celtic, and Gothic, the Spanish is indebted for very few words.

The Basques are of middle size, muscular, well made, upright in body, having black hair and a brown skin. They are industrious, passionate, self-opinionated, frank, lively, brave, superstitious, ignorant, and prejudiced in favour of their country. As enemies they are said to be implacable; as friends, faithful. They make bad regular soldiers, and have little respect for authority; nearly all of them consider themselves of noble origin. The best among them are the peasantry, who, if treated with kindness, are generally civil and hospitable. On the whole, we may say that in features, character, and dress, the Basques resemble much the Irish, although they are certainly not of Celtic extraction. Some consider the Basque language a dialect of the Phœnician, and the people to be descendants of a Phœnician colony, established at the foot of the Pyrenees at a very remote period. Balbi in his *Atlas Ethnographique*, places the Basque in the first family of European languages, and classes it with the Celtic. Webster tells us that the Basque or Cantabrian, the Gaelic and the Erse are the purest remains of the ancient Celtic!! Others have gone so far as to assert that there is so little difference between the language of the Basques and that of the Irish, that the two nations find no difficulty in understanding each other in their respective languages. Mayans traces the Basque to the Celtic. Larramendi says it is not only a primitive language, but *the* primitive language; but as Larramendi was either too vain or too obstinate to give any sound opinion on the matter, no attention need be paid to any of his assertions. Indeed, as a rule, Spanish philologists are no more to be trusted than Spanish historians, according to whom nearly every town of Spain was either founded by Tubal Cain, Hercules, or Noah. Others have endeavoured to show that the Basque is derived from one of the African or American languages. In like manner one ethnologist has proved most satisfactorily enough (to himself) that the languages of America are of Hebrew origin. Fancy the Americans crossing Behring's Straits to teach Basque to the early inhabitants of the Peninsula, and the Hebrew nation returning the compliment. Borrow says the Basque abounds with Sanscrit words to such a degree that its surface seems strewn with them, yet it would be wrong to term it a Sanscrit dialect; but Mr. Borrow is not happy in the examples which he has given. After some research, I am disposed to think that most of them are quite accidental, and that nearly all, if not all, the Sanscrit roots found in the Basque have come in through the Greek,

Latin, and derivative languages. After a careful comparison of the Basque with the principal European and Oriental languages, I agree with Mr. Borrow that the language is of Tatar origin. I do not mean to say that it contains many words in common with the Tatar dialects. I speak rather of its grammatical construction, which agrees to a considerable extent with the Magyar, the Georgian, the Finnic, and Lapponic. Among traits common to the Georgian and Basque are the absence of genders in the nouns and of the accusatives in the declension, the existence of the aspirates *kh* and *th*, the enumeration by ten and twenty, the usage of prefixes and affixes. The Basque, like the Finnic and Georgian, has several dialects. In the Basque "I have" is expressed as in the Magyar, the Lapponic, and the Arabic, viz., "it is to me." In the Lapponic the second present is formed like that in the Basque. The Basque has one affinity with the Scandinavian languages. The article, *a* in the singular, *ac* in the plural, is always suffixed to the noun, thus *guizon-a*, the man, pl. *guizon-ac*. In the Scandinavian the definite article, which is *en* in the masculine, *et* in the neuter, is always postponed; thus in Danish *vei-en*, the way, *torv-et*, the market. The Basque is indebted considerably to the Latin and Greek, and especially to the former, for a great many words. In the Dictionary of Chaho, now publishing, considerably more than half the words may be traced to those languages. Among other examples, are *dempora* from *tempora*; *corpitz* from *corpus*; *gastelua* from *castellum*; *cambera* from *camera*; *pantz* from *pantes*; *picoa* from *ficus*; *choil* from *solus*; *chaboi* from *sapo*; *liria* or *liliola* from *lilium* or *λειριον*. It has likewise many words from the Hebrew, the Spanish, and some from the modern continental languages, but very few from the Gotho-Teutonic languages and the Celtic. The Basque has three dialects, the Guipuzcoan, the Vizcaino or Biscayan, and the Libourtan. The first is spoken in Guipuzcoa, the second in Vizcaya and Alava, the last in French and Spanish Navarre. They differ from each other considerably. The inhabitants of Guipuzcoa and Biscay understand each other with difficulty; and the same may be said of the people of Alava, of Haute and Basse Navarre, of Labourt, Soule, etc. As a spoken dialect that of Guipuzcoa is reckoned the purest; as a written language the Labourtan has always had the advantage over the others. Notwithstanding what has been asserted to the contrary, with the exception of those provinces of Spain where the Basque is spoken, there are very few local names of Basque origin. Some are to be found in that part of the south of France where the Basque is still used. The language of the Gascons is no doubt to some extent mixed up with Basque; the Gascons having originated from the Basque provinces of Spain. Indeed Basque, Vascon, and Gascon are merely different forms of the same word. Statistics are of the greatest importance in Anthropological science. Perhaps in no country of Europe has the population experienced such fluctuations, and decreased to such an extent, as in Spain. The principal causes by which this has been produced have been attributed to the Moorish invasion; the contagious fevers and plagues which have especially afflicted the southern provinces; the wars between the

Moors and the Christians which raged from the beginning of the ninth to the close of the fifteenth century ; the proscription and expulsion of three millions of Jews and Moors ; the migrations to America ; the neglect of agriculture ; the want of detached farms ; the effects of a bad government : the depredation of the Barbary corsairs ; and the vast number of unmarried clergy and monks.

At the time of the Romans Spain is said to have contained 40,000,000 inhabitants : at the end of the fourteenth century 21,700,800 : at the close of the fifteenth century, under Ferdinand and Isabella, 20,000,000 ; but these are thought to have been over-rated, and the more probable estimates are 20,000,000, 16,000,000, and 15,000,000 respectively. In 1688, it was 10,000,000 ; in 1700, 8,000,000 ; in 1715, under Philip V, 6,000,000 ; in 1768, 9,307,804 ; in 1787 and 1788, 10,143,975. By the census of 1797-98 the population amounted to 10,541,221, but for certain reasons given by Laborde this census is underrated, and it is probable that the population, at this period, exceeded 12,000,000. It will be seen that from the time of the Romans until 1715 the population had been decreasing in the following proportions, viz., until the end of the fourteenth century, 4,000,000 ; from the close of the fourteenth until the end of the fifteenth century, 1,000,000 ; from the end of the fifteenth century until 1688, nearly 5,000,000 ; from 1688 to 1700, 2,000,000 ; and from 1700 to 1715 also 2,000,000. On the other hand, it increased, from 1715 to 1768, 3,307,804 ; from 1768 to 1788, 836,171 ; from 1788 to 1806, upwards of 2,000,000, making a total increase from 1715 until 1806 of above 6,000,000. According to Miñano, the population in 1826 was 13,732,172, which would give an increase since 1715 of 7,732,172. In 1833 the total population was 12,386,841 ; and in 1845, Madoz estimates it at 15,439,158. According to the census of 1797, says M. Faure, exclusive of about a fourth of the population, composed of persons living wholly on their property, Spain contained 100,000 smugglers, robbers, pirates, and assassins escaped from prisons or garrisons ; about 40,000 officers appointed to capture them, and having an understanding with them ; nearly 300,000 servants, of whom more than 100,000 were unemployed ; 60,000 students, most of whom extorted charity at night, on the pretence of buying books : add to this 100,000 beggars, fed by 60,000 monks at the doors of their convents ; at the period referred to, there existed in Spain nearly 600,000 persons who were of no use either in agriculture or the mechanical arts, and who were only calculated to prove dangerous to society. Making these and other necessary deductions, there then remained 964,571 day labourers, 917,197 peasants, 310,739 artisans and manufacturers, and 34,339 merchants, to sustain by their productive exertions 11,000,000 inhabitants. The decay of the Spanish people was no doubt to a considerable extent due to the expulsion of those great civilisers, the Moors. Segovia, in 1525, contained 5,000 families ; in 1845 only 2,000. Toledo had formerly 2,000,000 inhabitants ; in 1845 only 13,431. At the time of the capture of Seville by Ferdinand, 400,000 Moors marched out of one of its gates. In the seventeenth century the population was

300,000, 130,000 of which were employed in manufactures; its population in 1845 was 84,927. Valencia, according to Escolano, had in 1600 between 500,000 and 600,000 inhabitants; its population in 1845 was 71,013. Before the conquest in 1487, Granada had 400,000 inhabitants; whilst the kingdom, of which it was the capital, although only 30 leagues in breadth by 70 in length, contained 32 large cities, 97 large towns, and 3,000,000 inhabitants. In 1833 its whole population did not exceed 234,789. Under the Moors, Cordova is said to have occupied eight leagues along the banks of the Guadalquivir, and to have contained 600 grand mosques, 3,837 small mosques, 4,300 minarets, 900 public baths, 28 suburbs, 80,455 shops, 213,070 dwelling-houses, and 60,300 palaces. Under Abdelrahman and Almansor it is said to have contained 1,000,000 inhabitants. Its population in 1845 amounted to 41,976. In 1845 Madoz estimates the whole population of Spain at 15,439,158. At the present day great hopes of the regeneration of Spain have been entertained; and if progress is to be judged of by the introduction of railroads and manufactories; by foreign wars; and neglect of the soil, they may be well founded; but if, on the other hand, it is to be determined by the decrease of crime, disease, poverty, lunacy, and mental slavery, perhaps the regeneration of the people may be considered doubtful.

Mr. BOLLAERT said, that though he had travelled a great deal in Spain he could not add much to the paper, and to the communication from Dr. Charnock. The subject opened new ground to anthropologists with respect to Spain, and he hoped it would lead to further researches. Nearly all that the Spaniards had learnt of their country had been from the French, the Germans and ourselves. The history of the Basques and of the other provinces stretching northwards was involved in great obscurity, and it could scarcely be expected that any light would be thrown on it by the Spaniards, but there were materials from which much might be gathered if thoroughly investigated, and perhaps something valuable might be gained respecting the history of Spain if some persevering Germans would undertake the task.

Dr. SEEMANN confirmed the opinion of Mr. Bollaert as to the ignorance of the Spaniards of their own country and literature, as an instance of which he stated that they were ignorant of the works of Lope de Vega, who had written 1500 plays, until they were found and brought to light by Mr. Chorley, and he had no doubt that many more works of Spanish authors were to be found if the records were properly examined.

Mr. MARSHALL said there was one race not much spoken of that was perhaps the most remarkable of any in Spain—the Gitanos. He regretted that the author of the paper had not said more about them. There was formerly a prevailing notion that they came from Egypt, but it was now more generally thought that they came from India. He should like to know Mr. Beavan's opinion on that point, and whether he thought their language was merely a *patois* or was a separate language. For his own part he believed it to be distinct, and that the gypsies ought not to be called a Spanish race. Mr.

Marshall referred, in confirmation of that opinion, to Mr. Borrow's work, *The Gypsies in Spain*, in which he described them as a distinct people with a distinct language. That language, which is quite different from the Spanish, Mr. Borrow said is even spoken by the gypsies in England. Mr. Marshall also referred to the paper read at a former meeting of the Society by Mr. Harris on the Gallinas, in which several customs of that people were mentioned that were similar to those said by Mr. Borrow to pertain to the gypsies.

Mr. BOLLAERT said he had often talked with Mr. Borrow on the subject, and that gentleman was of opinion that the gypsies in Spain were of Asiatic origin; but nothing was positively known of it. The Spaniards call the language of the gypsies *gerigouza* and *germania* or gibberish. Mr. Borrow traced some Sanskrit words in it; and it may be observed that wherever the gypsies settle, their language partakes more or less of the language of the country.

Mr. C. H. CHAMBERS thought that the gypsies of Spain came, probably, directly from Hungary, but that they might have come from India originally. In the fifteenth century, they were spoken of as coming from the Slavonian part of Europe. He inquired whether the gypsies in Spain live in villages, as they do in Hungary, or whether they live in camps?

Dr. SEEMANN observed that the gypsies were to be seen in perfection in Hungary and Bohemia, where there were whole villages of them. When they travelled, they came into towns in waggon of a peculiar construction. They were excellent musicians; and, though they do not know musical notes, they will play any tune after hearing it once or twice.

Mr. BEAVAN, in replying to the remarks on his paper, observed that the want of literature was the greatest drawback in Spain. There were few places where books could be purchased; and in many a large town there was only one shop where any books could be obtained. The principal books the Spaniards read were French novels. The reading of them was a favourite amusement, but of their own authors they knew nothing whatever. With regard to the gypsies, their language was entirely different from the Spanish, but they could most of them speak Spanish. In Spain they did not live under hedges nor in villages, but they lived by themselves in towns. It was their practice to hire a small hovel, and live together in it in a miserable way; and then they proceeded to another town, and did the same. They were seen in the greatest numbers in Granada, where they gained their livelihood by playing music and exhibiting their dances, assisted occasionally by fortune-telling.

Mr. BOLLAERT then read the following communication from Dr. Hyde Clarke,—*On Anthropological Investigations in Smyrna.*

In accepting the local secretaryship in Smyrna, which the Council has conferred upon me, it may be useful to report on the field of investigation in this district. It abounds, indeed, in examples of phenomena connected with the prehistorical and historical period.

Monuments. Our caverns have not been investigated. Within

the last two years, some remarkable caverns in limestone have been found near Ephesus. I have strong reason to believe they are bone caverns, but I have not been able to obtain any investigation. I would strongly recommend this subject to some Fellow of the Society travelling in these parts. A fable, extensively credited by persons who ought to know better, and to be found in print, is, that in the mountains where these are found is a subterranean city, of which the entrance is near Kosboonar.

Cyclopean Cities. In these we are very rich. Within a short distance we have Smyrna, Tantalus, Sipylus, and Negrophæum; showing that in the prehistoric period large cities were thickly clustered. Ephesus and Samos are fine examples. I attribute the Cyclopean class to the Iberian inhabitants of Southern Europe. I have discussed the pre-Hellenic inhabitants of Asia Minor, and assigned them to the Iberians, in a paper before the Academy of Anatolia, and the Ethnological Society, briefly communicated to the British Association at Bath. This portion of W. Von Humboldt's researches is well worthy of prosecution. A list is wanted of Cyclopean cities.

Rock-cut Monuments. Asia Minor is rich in these, of which we have some in this neighbourhood. The Sesostris must be taken out of the class of Egyptian monuments. I have been for some time engaged on this subject, and have succeeded in obtaining the concurrent opinions of competent authorities, that this sculpture belongs to a class allied to Assyrian. It is probably of still greater antiquity. I hope soon to obtain photographs of the Sesostris, and the Niobe or Cybele. The other monument referred to by Herodotus will, I expect, be found on the well cliffs between Kosboonar and Ephesus. These require close examination.

Tombs of various kinds have been found, but have not been adequately investigated. No skulls have been secured. Many problems as to race may obtain solution from such remains.

Kitchen-Middens or Shell-Mounds. None are known, but must exist. I have pointed out the *oyster-beds* on Mount Pagus, the Ceedle Hill at Smyrna, formerly supposed to be fossil, as belonging to this class. A short description will be found in last year's *Athenæum*. This subject requires further investigation. I trust soon to send specimens to the Society.

Comparative Anthropology. At the present moment we have remains of many races, and in ancient epochs they were also various. The rajah Greeks I consider to be representatives of the Iberian and pre-Hellenic inhabitants. The Hellenic Greeks are supposed by Fallmerayer, Finlay, and myself to be of Albanian and Slavonian descent, and that the Hellenic element was extinguished many centuries ago.

The Armenians are numerous. These are a most interesting people. It is desirable to investigate their relations to the Georgians, and how far the fabulous Armenian history has any real basis of truth in connection with the early empires of Persia. I have been paying some attention to this matter in connection with my researches in the identification of the Caucasian tribes and the Tibetans, in support of

Mr. B. H. Hodgson's researches. The Koords penetrate into these provinces. The same questions arise with regard to them.

My present view is, that the Armenians, the Koords, and the Albanians or Arnaouts, are the three earliest Indo-European races that descended from the main seat of the family, and that the phenomena of their roots and grammar are to be sought partly in Kaukaso-Tibetan influences.

I may observe, parenthetically, that I assign the same influences as operating on the Ossetinians or Trun, and explaining its apparent anomalies, and conciliating the discoveries of Mr. B. H. Hodgson. I consequently doubt how far the Ossetes may be Indo-European, and whether a Kaukaso-Tibetan race may not have accepted an Indo-European language. The Kaukaso-Tibetan influence in Western Asia is an element to be investigated. It is possible that it affects the Lycian question, and the third arrow-headed. I have not been able sufficiently to examine these points.

This country of Anatolia is the main seat of the Ottoman Turks. The ethnological difference between the Osmanli and Turkoman is very great, and cannot be accounted for by the hypothesis of Circassian and Georgian intermixtures. On the question of the supposed extinction of the Osmanli, I have communicated a paper lately to the Statistical Society, in which I express doubts as to the fact, and give some evidence for showing that the supposed extraordinary increase of the Christians is a fallacy, and that for three centuries the local Christian and Jewish populations have been stationary.

The Turkomans, Yuruks, and other wandering and hill tribes, are well deserving of investigation. They are called Kizzilbashes or Shûtes, like the Persians; but their Mussulmanism is mixed up with peculiar institutions, bearing a semblance to the modifications of Islam in Syria. They likewise partake of that prevalent idea among Mussulmans, that there is a connection between their institutions and freemasonry. They certainly hold private periodical assemblies, to which initiates only are admitted.

There are many Negroes here, of whom evidence may be obtained as to Eastern and Central Africa. In the city of Aidin there is a woman of the tribe of Nyanyas, or 'men with tails', of the Nile, on whom I published a paper in the *Levant Quarterly Review*, some years ago. Mr. W. Winwood Reade, one of your Council, has given some interesting accounts of the Nyanyas, in his book on Western Africa. I am now endeavouring to obtain a Nyanya vocabulary from this woman, that to be found in philological works being imperfect, and affording no elements for ethnological classification. If I succeed in this purpose, we shall identify the position of the Nyanyas, and perhaps solve an inquiry raised by Mr. W. W. Reade, and by residents on the west coast, as to the connection of the Nyanyas with that district. I hope in time to obtain a photograph of this woman, who is a fine type of the race. The difficulties I have had on this subject are a fair measure of those to be encountered in this country on very simple matters. I have now made four attempts lately to get the vocabulary, without effect. M. Ernest Rénan, the eminent orientalist, who speaks

Arabic, as does the woman, willingly undertook it for me; but, on inquiry in Aidin, he could not find her. It turned out afterwards, he passed her in her usual resort on leaving the city. The same thing happened a fortnight afterwards with another party.

Many examples of mixed races are found here, particularly of Negro mulattoes and Levantines, or the mixture of Europeans with the natives of the country. The latter afford some most beautiful women in the first, and occasionally in the second, generation; but there is undoubted evidence that neither of the mixed races is permanent. It is to be observed, that some of the Levantines pass into Greeks, as is naturally to be expected from a preponderant Greek population. It is curious that, though the Levantine is a cross-breed chiefly among Indo-Europeans, the third and fourth generations produce many of the phenomena of Negro cross-breeds, as seen in the West Indies and South America.

On the subject of *mules*, I may relate that well-informed persons believe that many mules of the ass and cow exist in this country; and two cases have been named to me, which a friend is investigating. One of these alleged cow-mules is at Leidebein, eight miles distant, and we hope to obtain a photograph for transmission to Europe. The mule was in the city a fortnight ago, but we did not succeed.

On the subject of the phenomenon discovered by Count Strzlecki in Tasmania, and termed by me foaling, I have obtained further evidence as to the fact reported by me to the count, namely, that in Spain and South America, when a he-mule touches a mare, she becomes barren to a horse or an ass. In South America, a mule which has done this is immediately shot, as he may render a herd of mares barren. I have ascertained from muleteers here, that it is considered that the contact of a mule with a mare renders her barren.

Upon *hair*, I may observe that light hair is much commoner among the Armenians, who have very black hair, than among the Greeks, with whom the black is not so intense; I have seen negrolike hair among the Greeks, but have not identified with which race of Greeks.

Longevity. We have one alleged case of remarkable longevity in the Turkish quarter, of which I published a note in *Notes and Queries*, and which I have not got here for reference. Generally speaking, among the Turks there are not many cases of alleged centenarians.

Plague. The plague has ceased within the memory of persons now living; but there is no sufficient local cause, as many of the cities remain in the same condition. A subject deserving of investigation, is the occasional depopulation of villages by fever, arising, it is supposed, by a derivation of currents of air, as by cutting down forests, for instance, bringing miasma on a place formerly protected from it.

Transportation of Language. This has taken place at various times within the historical period. The rayah Greeks generally speak Turkish; the Armenians are acquiring a new literary Armenian language, displacing the Turko-Armenian; the Jews are abandoning Spanish for Italian. The Italian language, formerly the general polite language, is being displaced.

Dialects. The Levantine dialects of the European languages are deserving of attention. The Levantine-English or Levantine twang, about six years ago, was confined to about five hundred persons; but the children of the many new comers get quickly affected by it. A child under ten years old will come under its influence in about three months. It consists of a twang, accentuations, and idioms, in reality based on the bad or Smyrno-Greek dialect. I may note, that I observed children lost it in about two months after arrival in England. The English in Ireland and America are commonly longer in acquiring the dialect; and adult males resist better than adult females. The dialect of the neighbouring island of Mytlene, has been published, and I have ascertained from natives, that there is a distinct dialect in each village, which the people say cannot be understood by some of the neighbours. The number of dialects in that small island is by some reckoned at sixty.

The gypsies here may be usefully investigated. On the dialect of the gypsies of Roumelia, Mr. Pospati of Constantinople has published a very valuable memoir, to which I contributed some notes, in the *Levant Quarterly Review*.

Creolism. The effect of change of climate, so remarkable in the case of the English in North America and Australia, producing the physical effects known as Yankeeism, but which I have termed creolism, I have not noticed here. I have not observed that the children of European parentage on both sides, partake of any physical change in the nature of creolism; but the field of observation is restricted, as the number of pure blood is very small. In American and Australian cases, I have known instances of the children of immigrants born in the country, being distinguished by Yankee features from the elder children born in England. Some of the children of immigrants are not affected by creolism, but are wholly of English type.

Such is the field for investigation, but the difficulties of compassing it are great. There is no public spirit, and no zeal. The whole number of scientific inquiries is small, and, like myself, closely engaged, and having no time to devote to systematic inquiry. A small academy we formed, under the name of the Academy of Anatolia, and of which I was the President, has dwindled since its first year; the attempt to form a library has failed, after accumulating two thousand volumes; and the efforts for museums have proved abortive. It is only by aid from without, from travellers or visitors, having time or means to bestow, that results will be gradually obtained.

Thanks were voted to Dr. Hyde Clarke for this communication.

The following communication from Mr. Baines was read by Mr. C. CARTER BLAKE, which was accompanied by objects presented to the Museum illustrative of the matters referred to.

On Certain Implements and Articles of Dress from South Africa. By T. BAINES, Esq.

I have much pleasure in presenting to you, as you were kind enough to tell me the Society would value it, a spear or arrow-head of

stone, one of several found by Mr. Bowker's family near a drift (or ford) on the Fish River in the eastern province of the Cape Colony.

They were found (mingled I believe with fragments of pottery) thirteen feet below the surface of the soil, and are the first stone weapons known to have been found in Southern Africa. No one suspected the natives of having ever known the use of them, nor are there any traditions among the existing tribes that such were ever known to their ancestors. The Kafirs, Zulus, the various tribes of Bechuanas, the Damaras and the Ovampo all use iron spears or assegais, either for stabbing or as missiles; and nearly all, more especially the Ovampo (who for a long time supplied their less ingenious neighbours the Damaras) show considerable skill in smelting out the iron and forging them.

The Hottentots and Bushmen, beside the assegai, use arrows, the heads of which are also sometimes of iron but more frequently of bone, either rounded or neatly barbed, and tipped with deadly poison; sometimes obtained from herbs or bulbous roots, and sometimes from the entrails of a small grub, called 'kaa or ngwa; but I know of no tradition of stone weapons among them, nor have I met in the early Dutch records with any mention of such implements. I would carefully avoid expressing any premature opinion, but I cannot help thinking—and in that I believe Mr. Layard and others coincide—that these weapons indicate the existence of tribes which, with their peculiar customs must have passed away long before Europeans became acquainted with this part of Africa. This specimen was given me by Edwin Layard, Esq., Curator of the Museum in Cape Town, who showed me several others, none of which admitted of any doubt that they were artificially formed as weapons of chase or warfare.

It is hardly necessary to do more than refer to the extensive collections of the Society, to shew that these as well as others used in various countries could not be accidental fragments, but must have been the result of human labour skilfully applied to produce the desired form. Still, as I think it has been mentioned that the great number of fragments found in one spot militates against the idea that they could have been manufactured by a few rude savages, I will trespass so far upon your time as to describe what I have seen bearing upon the subject in North Australia, where stone spears and axes are still commonly used by the natives whose numbers scattered over the immense districts they occupy are so scanty that I do not think we ever saw more than twenty or thirty together at one time.

In many places while ascending the Victoria River with the expedition commanded by Augustus Charles Gregory, Esq., in the years 1855-6, we found fragments of almost any shape, so that they were but thin and sharp-edged. These seemed to have been used as knives for skinning or dividing such game as the natives were fortunate enough to kill; and as we advanced, spear-heads which had been accidentally dropped were more frequently picked up. I have no notes or specimens by me at present and write only from memory, but many of these seemed to be of rough jasper and other stones, and the best of them of flint or agate.

On one occasion, while exploring one of the tributary streams of the Victoria River, we came upon an open space between the cliffs, which perhaps for one or two hundred yards each way was more or less thickly strewn with fragments of various stones, and imperfectly-formed weapons. The mode of formation, as was evident from the materials strewed around, as well as from the explanation given by Mr. Gregory, was this. The native having chosen a pebble of agate, flint, or other suitable stone, perhaps as large as an ostrich egg, sits down before a larger block on which he strikes it so as to detach from the end a piece, leaving a flattened base for his subsequent operations. Then, holding the pebble with its base downwards, he again strikes so as to split off a piece as thin and broad as possible, tapering upward in an oval or leaf-like form, and sharp and thin at the edges. His next object is to strike off another piece nearly similar, so close as to leave a projecting angle on the stone, as sharp, straight, and perpendicular as possible. Then again taking the pebble carefully in his hand he aims the decisive blow, which if he is successful splits off another piece with the angle running straight up its centre as a mid-rib, and the two edges sharp, clear, and equal spreading slightly from the base, and again narrowing till they meet the mid rib in a keen and taper point. If he has done this well he possesses a perfect weapon, but at least three chips must have been formed in making it, and it seemed highly probable, from the number of imperfect heads that lay about, that the failures far outnumbered the successful results.

In the making of tomahawks or axes, in which a darker green stone is generally used, great numbers of failures must ensue, and in these another operation seemed necessary, for we saw upon the rocks several places where they had been ground, with a great expenditure of labour, to a smooth round edge.

Their cooking places, consisting of small holes in the ground, indicated by the bones that lay around—fish, water tortoise, and in one instance a small alligator, had been made to boil by the immersion of heated stones in the water, did not indicate a great number of natives nor a lengthened sojourn, while the fragments of stone lay very thickly over considerable portions of the space.

Malay Wooden Sandal, Cape Town.—The word Malay, though originally applied to the slaves brought by the Dutch from Batavia and their other possessions in the East Indies, has now ceased to imply any distinctive nationality, but is applied to all persons of whatever country who have joined them and embraced the Mohammedan religion. Their priests, many of whom have made the pilgrimage to Mecca, wear the turban and long flowing robes, but the chief distinction in the dress of the rest of the community is that the men have their heads shaved and wear a handkerchief of the Malay pattern—a red crossed with stripes of yellow and other colours—bound tightly round the head, and over this a large conical hat of straw, nearly similar to those now in use in the Indian Islands; the women, on the contrary, seldom wear any head-dress, but their own black hair, glossy with cocoanut oil, and gathered behind round an arrow of

whatever metal the wearer can afford. Sometimes European shoes are worn, and sometimes wooden sandals like the specimen. The projecting knob in front is grasped between the great toe and the next, and the sandal is easily dropped from the foot when the wearer enters a house, or taken up again on going out.

Damara Sandal.—The Damaras, an interesting race, rather more allied to the Negro than the Kafir, are supposed to have emigrated from the Zambesi below the Victoria Falls to the west coast, somewhat less than a century ago. They were very rich in cattle and fought desperately with many of the tribes in their way, until the Namaqua Hottentots, unable to stand before them, sought the assistance of Jonker Africaner, son of the Christian Africaner mentioned by Moffat, who with his tribe had fled from the colony some years before. Jonker's people possessing horses and firearms, not only repelled the stream of Damara emigration, but settled themselves in the country, and for many years plundered the Damaras of their cattle and committed many acts of barbarity, in which they were assisted by a Damara chief who had joined them against his own country people. At the time of my residence in the country from 1861 to 1864, the Damaras rebelled against their oppressors, and assisted by Mr. C. J. Andersson, Mr. F. Green, and some Englishmen, whose sympathy was naturally on the side of liberty, were carrying on a warfare, in which they have been so far successful as to have been the victors in three engagements, and will probably, if they continue so, become one of the most powerful tribes of South West Africa. The Rhenish Society has an extensive mission there, the numerous stations of which are under the superintendence of the Rev. C. H. Hahn, a man whose energetic character and long acquaintance with the native character render him eminently fitted for the service of consolidating the hitherto scattered power of such a people, and it is to be hoped he may be able to reclaim them from the barbarous habits in which they are as capable of indulging as their former oppressors. The dress of the Damaras is almost entirely composed of skins either of the ox or goat—that of the men consists of a belt composed of sixty or eighty fathoms of leather thong worn like a coil of small rope round the hips, with a soft skin passing between the legs and tucked into the belt before and behind; their woolly hair is pulled out into strands three inches or so in length, matted with red clay, parted in the middle, and worn hanging down on either side, with a cockle-shell as an ornament where the hair parts above the forehead; their ornaments are generally rings, either of iron or copper, worn on the arms and ankles, and their weapons, the broad-bladed spear and bow and arrows, considerably larger than those used by the Bushmen. The women wear a peculiar cap or helmet made of stout ox hide, with three ears of the same, one on each side and one behind; a curtain of soft skin is attached to the front, but is almost always rolled up over the forehead with the ends hanging down on either side. From the after part depends a broad fall, composed of short tubes of iron strung on leather thongs reaching to the waist, and terminated by a short fringe. The younger women are not privileged to wear this, it being

the exclusive right of those who are married, and no offence against Damara etiquette can be compared with that of being seen without the bonnet. The younger girls wear a fringe of leather thongs, more or less scanty, according to the size of the skin it happens to be composed of, and as they grow older a kilt or short skirt of the same material is added, and if they can afford it a belt composed of pieces of ostrich egg-shell carefully rounded to about the size of a shirt button, and strung upon thongs of leather; row after row is added, and the belt increases in breadth till I have seen it reaching from below the waist nearly half way down the thigh; in this case it is very valuable, and serves as a medium of exchange to the owner, who at times will cut off portions and barter them for whatever she wishes to purchase. Rings of iron are their general ornaments, but formerly they were accustomed to wear them of copper nearly an inch thick, and weighing several pounds each, but these are now seldom seen, and indeed were frequently a temptation to plunderers, who did not hesitate to cut off the hands and feet of the unfortunate wearers to obtain possession of the ornaments. The mantle is made of softened ox-skin with the hair on, and frequently with a long strip pendent from the shoulder, ornamented with iron beads in various patterns; anklets or gaiters are made of iron beads strung on thin leather thongs, and the sandals, both of men and women, are made of untanned hide, softened by beating or rubbing; they are pointed before and behind, and are generally nearly two inches longer than the foot each way. The sandal before the Society is one of a pair made for me by a man who thought I wanted to wear them myself, and could not understand that I wished them strictly as a specimen of the native dress, it is therefore much smaller than usual. Some of the native sandals being nearly eighteen inches long, with the points projecting at least two inches beyond the toe and heel, the first thong comes up between the great toe and the next, joining another which forms a loop passing round the heel, and confined about the middle by another thong passing through the sandal and coming up on either side of the foot. The sole is of eland's skin and the thongs of koodoo, which is also extensively used among the colonists for vel schoens, lashes of waggon whips, and other purposes.

Bechuana Sandal, and Cheeka or man's dress, from the Batawana (or little lions) at Lake Ngami.—The Bechuanas differ in custom and dress from the Damaras, being rather more assimilated to the Kafir than to the Negro, many of their words bearing great resemblance to the Kafir language. Their hair is short and crisp, and is worn close to the head, ornamented sometimes with the round tufts of black ostrich feathers. The only article of dress absolutely essential is the cheeka or loin skin. A belt of any kind is tied round the hips, and the cheeka—a three-cornered piece of goat or antelope skin carefully softened, is put on by tucking two of the corners into the belt on either side the hips, then passing the third between the legs, bringing it up and tucking it into the belt behind. This is worn also by the Bushmen, who sometimes, in bringing up the after end, neglect to hitch it in the belt, and let it retain its place by more muscular

action, in which case it looks exactly like a tail, and probably might have given rise to some of the reports of tailed men that have been seen in Africa.

The arms of the Bechuanas are the assegai or light spear, of which they usually carry three, the battle-axe, and shield of ox-hide, but many of them now abandon these for the musket. Their ornaments are more generally of beads or brass rings purchased from traders; they cultivate large fields of corn upon the bank of the lakes and rivers, and possess numerous herds of a peculiarly long-horned breed of cattle; they are not canoe men, but the tribe living at Lake Ngami have conquered the Makobas of the country, and compel them to perform what service they require on the water. The sandal is of the hide of the blaawe wildebeeste or brindled gnou, and the thongs of koodoo; it is roughly cut to the shape of the foot, and is similar in form to that worn by the Bushmen. The cheeka is of goat-skin.

The piece of giraffe-skin is such as is usually prepared by the colonial white or coloured hunters for soles of vel schoena. I have seen it so thick that one hunter was cutting out of the piece a pair of soles with heels almost as deep as those of a fashionable boot.

Bushman's fire stick and sucking reed.—Fire is obtained by the Bushmen from two small sticks of light and not very hard wood; a notch is cut in one which is laid down on one of their sandals, and firmly held there between the feet; the pointed end of the other is then placed in the notch and whirled round between the hands with a downward pressure until they gradually reach the lower part of the stick, another man is then ready to place his hands at the top and continue the motion, until he is in turn relieved by the first; in less than a minute small wood dust is collected, the notch becomes charred, and in little more than a minute the dust is ignited. Dry grass rubbed small is then carefully applied, and the fire collected in it soon fanned into a flame. The power of striking a spark at once from a flint and steel appears to them marvellous, although within the reach of human skill, and a Dutch tinder-box is therefore coveted as a most desirable possession; but that of drawing fire from the sun by a burning-glass, or obtaining it by rubbing a lucifer match, seems at present to be regarded as some peculiar privilege of the white man which is not intended for them. The sucking reed is used in places where the sand is moist, but not sufficiently so to allow water to collect for drinking purposes. The end is enveloped in a wisp of grass, a hole is scraped in the wet sand, which is then again heaped round it, and whatever moisture filters through is thus made available for drinking purposes. It is also used when from the position of the water it may be inconvenient to drink in the usual manner.

The cap of plaited palm leaf is from the other side of the continent, being such as is usually made by the natives in the Portuguese possessions near the mouth of the Zambesi, and worn by the white and half-caste inhabitants, it is not therefore to be regarded as a specimen of strictly native manufacture, but as that of those who are living in serfdom or a mild form of slavery under the Portuguese, and many of whom have been instructed to work as goldsmiths, boat-builders, and at various other trades.

The PRESIDENT proposed that the thanks of the Society be given to Mr. Baines for his communication and for the interesting specimens he had presented to their Museum. He had promised to attend at an early meeting of the Society and to exhibit a collection of sketches taken during his travels in Africa.

Dr. SEEMANN observed that the fire-sticks exhibited were similar to those used by savages in other parts of the world. They consisted of a soft piece of wood and a piece of hard wood, and the heat produced by rubbing them together ignited the powder rubbed from the soft wood, which was then blown into a flame. It appeared from Mr. Baines's communication, that in Africa two men were required to produce fire in that manner, but among the Esquimaux one man obtained fire by that means. It required great dexterity to do it and he had never succeeded, but Mr. Pritchard had.

Major OWEN remarked that the wooden sandal exhibited had apparently come from India. Sandals of that kind were very common at Calcutta.

The PRESIDENT said a letter had been received from Mr. George M'Henry, a Fellow of the Society, and a Member of the Historical Society of Pennsylvania, correcting a misrepresentation in the Queen's Speech on the opening of Parliament that day. As the letter had only been received that evening it could not be submitted to the Council in the usual manner, and as it would be somewhat irregular, therefore, to read it, he submitted the question to the meeting.

The question whether the letter should be read was put to the meeting and was carried.

Mr. BEAVAN then read the letter as follows :—

"Paddington, Feb. 6, 1866.

"SIR,—The truths of history and the facts of science oftentimes bear so close a relationship that I, as a Member of the Historical Society of Pennsylvania and a Fellow of the Anthropological Society of London, cannot refrain from criticising to you some remarks made in the Royal Speech to-day. Her Majesty is reputed to have said, in the paragraph referring to the United States, that 'The abolition of slavery is an event calling forth the cordial sympathies and congratulations of this country, which has always been *foremost* in showing its abhorrence of an *institution* repugnant to every feeling of justice and humanity.' Not being an Englishman I have nothing whatever to do with the 'cordial sympathies and congratulations of this country' in the matter of emancipation, nor do I desire that my native state, Pennsylvania, should have any credit for abolishing slavery after that 'institution', as the Queen is graciously pleased to call it, became unprofitable; but certain it is, that under the influence of the Quakers, Pennsylvania was not only the 'foremost' state to agitate freedom for the Negro, but she likewise was 'foremost' in prohibiting the 'institution' to exist within her borders. Her legislature, in 1780, during the revolutionary war, when the consent of the Crown was not required, and when it would have been refused had it been needed, passed the following enactment :—

“All persons, as well Negroes and Mulattos and others, who shall be born within this state, shall not be deemed or considered as servants for life or slaves; and all servitude for life, or slavery of children, in consequence of the slavery of their mothers, in the case of all children born within this state from and after the passing of this act as aforesaid, shall be and is hereby utterly taken away, extinguished, and for ever abolished: provided, however, children born hereafter of slave mothers are to be held to servitude until they are twenty-eight years old.’

“I draw your attention to this matter merely for the purpose of keeping history from being warped. If cotton and rice could have been cultivated in Pennsylvania she would have been a slave state to this day, because, if her productions had been similar to those of the Southern States she would have cast her lot with the Confederates, and in that case the South would have been the more powerful of the two sections of the American union.

“The African slave trade was first temporarily abolished by the Revolutionary Congress of 1774, and then by the several states south of Mason’s and Dixon’s line. Subsequently all the states, through the Congress under the Constitution of 1789, agreed to discontinue the commerce in 1808. Great Britain abandoned the trade about the same time, though she was very slow, and certainly was not foremost in adopting that policy.

“Your obedient servant,

“GEO. MCHENRY.

“A number of the states of the American union, not Massachusetts, abolished slavery long before Great Britain thought of doing so, and if I remember right France was some years in advance of England in the matter.

“To James Hunt, Esq., President A.S.L.”

The PRESIDENT observed that Her Majesty was not to blame for the sentiments expressed, and that Earl Russell had not shown much knowledge of anthropology in the manner he had dealt with the Negroes. He must say that such conduct was repugnant to his feelings of justice and humanity, and it would bring great misery on the Negro race. Unless care was taken to correct the measures that were being adopted in Jamaica such outrages would always be taking place.

Mr. BOLLAERT remarked, that their Vice-President, Capt. Burton, had said in a recent work, that the citizens of the United States were always doing what they could to improve the American Indians off the face of the earth, and they seemed now to be doing the same thing with the Negroes.

The PRESIDENT said the Society were doing their duty in correcting historical mistakes relating to the introduction of slavery that might subsequently mislead, and they were indebted to Mr. M’Henry for sending his notice of the Queen’s Speech. The President announced that Mr. Pritchard, the Special Commissioner from the Anthropological Society of London to Jamaica to investigate the anthropological causes of the recent insurrection of Negroes in that island, would leave

for Jamaica by the next mail, and that Dr. Seemann, a Vice-President of the Society, would accompany him and assist him in his investigations of the subject. They should, therefore, have a doubly valuable report as to the real causes of the recent insurrection.

The meeting then adjourned.

FEBRUARY 20TH, 1866.

JAMES HUNT, ESQ., PH.D., F.S.A., F.R.S.L., PRESIDENT, IN THE CHAIR.

The minutes of the former meeting were read and confirmed.

The names of the new Fellows elected were announced as under:—

Alexander Aria, Esq., 8, Randolph Road, Maida Hill; T. G. Wesley Bennett, Esq., 39, Moorgate Street, E.C.; Arthur B. Harris, Esq., M.D., Falmouth, Cornwall; Richard King, Esq., M.D., F.E.S., 17, Savile Row, Regent Street, W.; James McCrevey, Esq., M.D., Assistant-Surgeon, 66th Regiment, Raglan Barracks, Devonport; Fenwick T. Poole, Esq., 26, Lincoln's Inn Fields; Hugh R. Semper, Esq., 47, York Street, Portman Square.

The following presents were announced to have been received, and the thanks of the Society were given to the donors:—

Laycock, Mind and Brain; Mayhew, London Labour and London Poor (extra volume); Winslow's Journal of Psychological Medicine; Brierre de Boismont, Du Suicide; Des Hallucinations; Lébut, l'Amulette de Pascal; Du Démon de Socrate; Leçon Clinique de Médecine mentale; Prosper Lucas, L'hérédité Naturelle; Fabret, Des Maladies Mentales, or Mental Medicine; Serres, Recherches sur l'Anatomie transcendante (with atlas); Journal of Mental Science (Dr. J. Hillier Blount, F.A.S.L.); Pruner-Bey, Sur les origines Hongroises; Résultats de craniometrie (the author); Covarrúbias's Manifesto on the Affairs of Chile (Charles Blake, Esq.); Möbius, Prof., Anniversary Address (the author); Königliche sächsische gesellschaft der Wissenschaften (the Society); Schriften der Königlich physikalisch-öconomische gesellschaft (the Society); P. A. F. Causen, Geodätische untersuchungen (the author).

A Few Remarks on the Bunu Tribe of Central Africa. By T. VALENTINE ROBINS, F.A.S.L., F.R.G.S., F.E.S.*

The boy submitted for your inspection is a native of the Bunu country, which lies at about four days' journey from the British settlement of Lukoja on the Niger, and to the north-west of the confluence in ten degrees north of the equator; he was redeemed from slavery by the late Dr. Baikie, who founded the settlement, and who died at Sierra Leone on his passage to England in 1864. The boy would cost 170,000 cowries, which is the currency there, and is equal

* In illustration of this paper, a boy of the Bunu tribe, a collection of portraits, and numerous articles of manufacture were also exhibited.—ED. J.A.S.L.

to £7 of our money. He is very intelligent, speaks the Hausa, Nufi, Bunu, and Igbirra tongues fluently, and these are not acquired by tuition, but through their unsettled state of life, being frequently sold from one tribe to another. He is a fearless horse-rider, a keen-sighted guide whilst hunting in the jungle, a gentle nurse in sickness, and has proved a faithful honest servant to me during my residence in Central Africa. I think that he is perhaps the first specimen of his tribe ever brought to England. His tribal marks are perhaps the Severe, in the interior at least, as far as I have seen, and are held in great esteem by themselves. The operation must cause great pain, and is generally done in infancy; yet it is customary to mark boys and girls when purchased from another tribe. The operator, generally the "town barber", cuts clean out from the face three long strips of flesh, extending from the crown towards the mouth, and one short line from the side of the nose across the cheek, touching the first perpendicular line, these are intermixed with fine lines placed at different angles; the forehead is also marked with fine lines in the form of the letter X. After cutting out the flesh, the wound is filled in with country medicine or palm oil and soot, which causes the mark when healed to stand out in bold relief on the face. The Bunu are a quiet, inoffensive, intelligent, hard-working people; the men are hunters, farmers, cloth-weavers, and workers in pottery, and have a better knowledge of horses and cattle than the generality of the tribes hereabouts; they give the horses lubi in their drink once a day, which keeps them in splendid condition, but this is discontinued if the animal becomes sick. Lubi is brought from the dry bed of the lakes in the interior in large slabs, it tastes like saltpetre, and is commonly used medicinally by the people in their drink. The boys when very little are taught to mount the bare back of a half-tamed horse, and here they hold on with the tenacity of a monkey and the fearlessness of a hunter. Being quite naked, and the head shaved in a variety of styles, gives them a pleasing appearance. Some have the hair cultivated in a ridge on the top running from the forehead down to the base of the skull; others have one or several round patches of hair left, whilst many have none at all. Their weapons are the usual poisoned arrow, long spear and knife, which are very well made by native blacksmiths of country iron; they weave excellent cloth from the thread spun by the women; their clothes are dyed of a deep indigo by being steeped in a preparation of the leaf of the plant; some are coloured red, but generally the red part of the garment is silk woven in a separate piece, and sewn to the cotton. These cloths are very cheap and durable. The women are modest and good-looking, very willing to work, and fond of gay colours; their principal work is to sell the produce of the farm, besides their usual occupations of cooking, carrying water, and reeling cotton thread; they are of a lively and cheerful temperament, and generally sing extempore songs whilst grinding corn—the white man, his saying and doings, his wealth, and kind treatment to them in giving them cloths and provisions often form the subject of the song, and when any witty allusion is made a general shout from all the grinders terminates the verse,

which is taken up by another until all try their powers at composition. They carry heavy loads on their heads, and have the "pick-ins" tied on to their backs—these women seem to have more affection than some others for their children; yet I have never seen a woman kiss her child, and these endearments are perhaps not practised from the knowledge that they may have to part with their children at any time; and indeed, I have known women offer their children for sale, preferring that the white man should purchase them before any other tribe, because they know from experience that they are better treated. The women and girls live in great fear of being kidnapped. One woman assured me that, when very young, she and a companion were going to fetch water, when some men kidnapped them and hurried them away in canoes down the Niger to the Ebo country to be sold to the cannibals; she fortunately escaped the test for good meat, which is beating the hands violently together until the victim nearly faints, and then thrusting them into hot water; if the hands look red on being taken out of the water, that is a sign of good meat, and purchased accordingly, but if greyish looking the lucky wretch is refused. Now this woman, then a girl, being refused by the cannibals, was sold to a Portuguese slave-dealer, who shipped her off in company with many others on board a vessel in the Bight of Benin, the vessel was captured by one of our cruisers and taken to Sierra Leone, where the poor wretches were liberated. This woman lived there many years, and after all, with her husband and child, managed to return as near to her own country as safety would permit. The Bunu people are both heathens and Mohammedans, and intermarry with the Kakanda and Igbirra tribes, who are both a powerful and warlike people.

The PRESIDENT observed that the meeting were much obliged to Mr. Robins for his communication, and for having taken the trouble to bring for their examination this Negro youth, and the various drawings and other objects, and he was sure they would be anxious to return him their thanks.

The thanks of the meeting were unanimously accorded.

Mr. J. MEYER HARRIS inquired whether the four African languages spoken by the boy were really different languages or merely dialects of the same language. For his own part he had found very slight differences in the languages of the tribes in the West of Africa. With respect to the lubi spoken of it was an article commonly used by the natives for a variety of purposes. The common manner of preparing it was by burning the leaves of the banana. He differed from Mr. Robins as to the use of indigo by the natives of Africa, for there was no real indigo in Africa. The material used for the blue dye was different from indigo. A chemist had been sent from this country for the purpose of procuring indigo from the substance used by the natives, but it was very different. With regard to the alleged cheapness of the manufactured articles, he also differed from Mr. Robins, for in the course of his African experience he had never found any article made by the natives so cheap as it could be supplied from England. As to the apparent want of affection of the women for their

children, it must be borne in mind that their signs of endearment are different from ours, and they do not understand kissing. It was natural that the women should have great affection for their children, every man has a dozen wives, and the children looked only to their mother for care and protection. With regard to the statement about cannibalism and the testing of a woman whether she was fit for food or not, he observed that though it was known that cannibalism existed among some of the African tribes, he never heard of a market for the sale of human flesh for the purpose of being eaten. He was inclined to think the test of slapping the hands had some other meaning, and that it had something to do with a test for supposed witchcraft. He inquired whether the Bunu tribe were accustomed to use bows and arrows, for his experience taught him to consider those tribes who used bows and arrows as more intelligent than those who did not.

Mr. BENDYSHE observed, that as it had been stated by Mr. Robins that the boy could speak English, and sing English songs, it was evident that he was capable of learning different languages.

Dr. BEIGEL said he should like to hear more particulars indicative of the intelligence of the boy. If it were proved that the boy was as intelligent as boys of his age usually are, then it would become a question who his father and his grandfather were, and whether there was any white blood in him.

Mr. C. CARTER BLAKE said he was glad that they had a live negro before them for the purpose of testing the correctness of the rash generalisations as to the equality of the negro and the white man. He believed the boy to be of a negroid race, and that he belonged to those tribes which were called Foullahs on our maps. If they examined the boy it would be found that he, in one respect at least, approached the character of inferior animals. Van der Hoeven was the first to arrive at the generalisation, from an examination of the hands of negroes, that the metacarpals are webbed to a greater degree than those of Europeans. The boy before them was an example of the correctness of that opinion, for it would be seen, on looking between his fingers, that they were more webbed than those of any white person present. Mr. Blake then directed attention to one of the portraits exhibited, in which a very young negro child was represented as gnawing a human femur bone, and commented on the improbability that a child so young could have possessed teeth to obtain food in such a manner.

Mr. MACKENZIE remarked upon the receding lower jaw of the boy. Though the brow and face were well developed, he did not think he looked like a pure negro.

Mr. MILL said he had seen boys in Africa like the one then present. He considered he belonged to the Houssa tribe, which was a pure negro tribe, so far as that tribe were concerned. He had seen one of them who was six feet two inches high. They inhabit a country, the chief town of which is the head centre of Mohammedanism, and where the archives of the town were written in Arabic. The age of the boy he supposed to be about fourteen years.

Mr. ROBINS stated that the boy he believed was only ten years old.

Mr. BAINES said that during a short stay at Sierra Leone he saw a great many varieties of the pure negro (Mandingos), who presented very different characteristics. Some of them were men of fine stature, with features as fine as the boy before them, and who were industrious and useful as sailors.

The PRESIDENT remarked that it was generally admitted that between the ages of ten and fourteen the negroes were nearly equal in mental capacity to the European, therefore it might be expected of the youth before them that he would show signs of intelligence. It might be doubted, however, whether he would be an exception to other negro boys whose intellects seemed to be developed after attaining the age of fourteen. He should like to know whether there was any evidence of there being Arab blood in the boy's veins.

Mr. ROBINS, in replying to the remarks on his paper, said that the boy speaks four different tongues, the only one of which that was written was the Houssa. The languages were so different that those who belonged to one tribe could not understand either of the others. The lubi was brought to the Bunu tribe in thick slabs, four of which make a load for a donkey. It was taken from lake Tchad and brought to the Houssa country. The mother of the boy was a convert to Christianity, and he believed her story about cannibalism. With respect to the blue dye, the plant from which it was procured was, he believed, the same as the indigo plant—at least it appeared to be the same. With respect to the father of the boy, he himself did not know who was his father. He was purchased by Dr. Baikie, and was not a Houssah boy. That tribe do not mark themselves, for they consider themselves above such practices. The boy was not more intelligent than other boys of his tribe.

Mr. L. O. PIKE read a paper—*On the Psychical Characteristics of the English People*—which will appear at length in the *Memoirs*. He began by explaining that in this paper he dealt only with one branch of the evidence bearing upon the origin of the English, the whole of which evidence would be given in his work *The English and their Origin*. He adopted Professor Bain's division of psychical phenomena. He treated first of the muscular feelings and movements, the consideration of which led him to point out certain differences of will or energy in different peoples. He then passed on to the characteristic emotions of different nations, and from them to the different intellectual characteristics. He compared together four peoples, the ancient Britons, ancient Greeks, the modern Germans, and the English. The English character, he said, resembled the Greek character, and differed widely from that of the Germans. He gave evidence to show that the English deserve their reputation for love of athletic sports, and that the characteristic appeared to be inherited from pre-Roman, not from German, ancestors. The chief emotional characteristic of the Germans, he believed to be wonder, which he traced in certain peculiarities of their language, in their literature, in the different branches of their art, and their science. The English did not appear to him to be equally prone to that emotion, or to have so great a love for it. They, on the contrary,

were remarkable for modesty, for delicate self-respect, for the sense of individual responsibility. Following out the divisions of the intellect made by Mr. Bain, Mr. Pike maintained that the English had greater constructive power, and greater power of perceiving resemblances, with less power of redintegration—of elaborating details—than the Germans.

Dr. CHARNOCK said he had never heard a greater panegyric on the English, or a greater libel on foreigners. He then proceeded to comment *seriatim* on the principal points in the paper. According to its author, in *England*, men and women were generally modest, and men generally honourable. Now, if Englishmen were generally modest, he could not understand how they made such way in the world. He had travelled over the whole of Europe, and was disposed to think that continental nations were quite as honourable and quite as modest as the people of England. To be sure, in the "present age of progress," as it was called, there was not too much of either virtue, but was not that a reason why the English should not appropriate the whole of it to themselves. Mr. Pike had referred to the moral and intellectual character of English statesmen. Dr. Charnock trusted the author of the paper did not include the present century; for if he were asked to symbolize the character of English statesmen during the last fifty years, he should do it under the terms Machiavelism, Mephistophelism, Jesuitry, Bedlam. The last stage was Bedlam. We were told that England was great in inventions, but that Germany and Holland were not so. Now it was notorious that the English were not great in this department, but that they displayed great tact in utilizing the inventions of foreigners. All the most important inventions had originated in Germany, Italy, Holland, etc. Witness printing, gunpowder, watches, clocks, the barometer and thermometer, the voltaic battery, galvanism. That the English have been great in the drama was indubitable, but Germany had produced many respectable dramatists besides those mentioned by the author of the paper. There were Hippel, Gotter, Stolberg, Zeidlitz, Von Kleist, Friedrich Müller, and Kotzebue. Could the question be decided by number, the Germans would be the greatest dramatists in Europe, the *Pocket-book of Comedians*, published by Lambert in the year 1823, containing the names of no less than two hundred and eighty-seven living German dramatists. The author of the paper asserted that the English were the best horsemen in the world, but he would seem to have ignored the natives of South America and the Arabs. Mr. Pike had referred to the minuteness of the old Dutch school of painting, but he said nothing of the pre-Raphaelite school now in vogue, which, if anything, was still worse than the Dutch school. According to Mr. Pike's theory, the English must be closely allied to the Hungarians, the Turks, and the Spaniards, for it could not be doubted that the English are among the proudest people of Europe. In England it was said that little children were always on the move, therefore the English must be of gipsy origin. If indeed the English people were of Celtic

origin, it was strange that out of eighty thousand English words not more than forty could be traced to the Celtic languages. The base of our language was Saxon, but the majority of the words might be traced to the Latin and Greek, both of which languages had their root in the Sanskrit and Phœnician.

Dr. SEEMANN observed that one of the reasons assigned by Mr. Pike why the English were not descended from the Germans was that they had forgotten the use of the fist. But they have not forgotten it, and if Mr. Pike were to express in Germany the opinions he had expressed that evening, he would have practical experience of the fact. The use of the fist was known in Germany in primitive ages, and the language makes numerous allusions to it. With regard to the use of wheels, he remarked that chariots and waggons were known to the ancient Germans; therefore it must be assumed they knew at that time the use of wheels. The author of the paper seemed to have founded his observations respecting the love of the Germans for anything wonderful on a misappreciation of the meaning of the term. It was used in Germany, not to signify anything really wonderful, but in the same sense that the word remarkable is used in England. But even supposing that the Germans did often express wonder, it was rather an indication of superior intellect than the reverse. It was only intellectual and civilised people who wonder at anything; savages do not wonder. With respect to the drama it might be adduced as evidence of the dramatic power of the Germans that there was not a theatre in London in which German plays were not continually performed, of which the plays of *Leah*, the *Stranger*, and *Pizarro* were instances. As to music, German music was now so much liked in this country that it was needless to make any remark on the incorrectness of the statement in that respect. It was true that the Germans do not value melody so much as harmony. It was only childish people who preferred melody; those who know what music really is, prefer harmony. Then, as to Germans not being colonists, he referred, in contradiction, to that part of the paper to South Australia and to the United States, which were, to a large extent, occupied by German emigrants. The chief fault that he found with the paper was that it overstrained the reality.

The Rev. DUNBAR HEATH said his objections to the paper were more fundamental than those of the preceding speakers. He did not think it was a scientific paper. It was about three nations; the Greeks, as they were known three thousand years ago; the Germans, as known from the time of Tacitus; and the English, from the days of the Heptarchy. Now, the character of a people was always varying. The Greeks of Athens and of Lacedæmon, for instance, were very different from each other; the Greeks occupied three-fourths of Asia Minor; they abounded in the South of Italy and in Sicily, and in each country they exhibited different characteristics. They could not be taken as unity; there were indeed fifty elements in every character; each one was different from the other. The Greeks of different periods of history, also, differed in those characters, those of the days of Homer being different from the more modern Greeks.

It was the same with the Germans ; some of the German tribes and nations were very different from others. Those who invaded England came principally from Heidelberg and the neighbouring district. Similar differences were observable between the Welsh and English ; and he contended that similarity of feelings, habits, and tastes, even if they could be proved, afforded no evidence of the character of a nation. He objected to the selection of certain men as the types of the character of a people who might differ essentially in different parts of the same country. For instance, fifty years ago, a Manchester man and a London man were very different, and which of the two was to be taken as the type of Englishmen ? Even each individual alters materially in his principles and his modes of action in the course of his life ; therefore the character of a nation must in the course of three thousand years be greatly changed, and it was almost impossible to define what is the distinctive character of any people. That was the principle objection he made to the paper. It attempted to arrive at conclusions from observations of characters that were continually changing, and therefore he contended it was not based on scientific principles. It was interesting and suggestive, but he considered the evidence on which it was attempted to prove a connection between the Greeks and the English was unsatisfactory and delusive.

Dr. BEIGEL agreed with Mr. Heath in thinking that it was not a scientific paper. The author attempted to show that the English were an admirable people, and that there was a connection between them and the ancient Greeks in mental qualities and in the beauty of their persons. It was not necessary to write a book to prove that the English were a great nation ; but if any person were to institute a comparison between the beauty of two nations, he would be sure to arrive at the conclusion of giving preference to the nation to which he belonged ; for the comparison between the Germans and the English, he thought the author of this paper had adopted the opinions of Mr. Mayhew, who had written a libel on the German people, founded on observations of the lower classes, for he had not had access to good society in Germany. Persons not familiar with the German language were liable to commit many errors in construing the meaning of words, and to that cause he attributed the inference drawn by the author of the paper from the frequent occurrence of the word *wunder*. That word was not used in Germany in the sense assigned to it in the paper, and similar expressions were as much used in England. As to the word *wundersam*, on which much stress has been laid, it was an obsolete word not now used in the German language. He hoped that the paper would not appear in any publication connected with the Anthropological Society, for he should be ashamed to see it printed in their proceedings.

The PRESIDENT entirely dissented from the opinion that the paper was not of a scientific character. It treated of one of the most difficult subjects of anthropological science. He thought the author of the paper had dealt with it in a fairly scientific spirit, and the Society were much indebted to him for making this first attempt to grasp

such a difficult subject. He trusted it would be followed by others of a similar character. The paper he hoped would be printed, and if it contained any errors that they would be corrected, and that the subject would be discussed more in detail on some future occasion.

Mr. PIKE, in replying to the remarks on the paper, said he had explained at the beginning that it was only a portion of a larger work, in which a great mass of evidence was given in support of the opinions expressed, and that he had laid it before the Society in that form with great diffidence. There had, indeed, been less said against the paper than he expected. In answer to the objection raised by Dr. Charnock, that only a small number of Celtic words can be found in the English language, he referred to the present state of the language of the Negroes in Jamaica. They speak English not mixed with any African words, and it might, on that account, as well be said that they have no African blood in their veins as that the English are not descended from the pre-Roman Britons, because there are few Celtic words in their language. He would not then enter farther into the philological question, which he had discussed elsewhere. With respect to the objection that the English could not be remarkably modest, or they would not get on so well in the world, he thought it must be obvious to every one except Dr. Charnock that he used the word modesty as a synonym not for bashfulness, but for the sense of decency. Mr. Charnock's list of inventions had been almost entirely taken from Mr. Pike's own list of the inventors produced by various countries. Clock-making was an exception, but its origin was uncertain, and no one could say that the English clock and watch makers were inferior to others. There might be two hundred or twenty thousand German playwrights, but no number of attempts necessarily implied success. In fact, the greater the number of its dramatic failures the less could a nation claim dramatic ability. Mr. Pike repudiated the notion that he had intended to disparage the Germans. His only object was to draw a distinction between them and the English. Dr. Seemann and Dr. Beigel asserted that the Germans did not think anything wonderful when they said it was wonderful; but Mr. Pike had anticipated and answered that objection in his paper. The Germans displayed the physical signs of wonder when they used the word. Then, again, as to the Germans having colonised Australia and the United States, he said it had always been, and still was, his impression that the Germans had emigrated thither after the English had founded the colonies. In reference to the objection of Mr. Heath, that the paper was not of a scientific character, and that no scientific paper could be written on the subject of national characteristics, because there were no national characteristics to be compared, he observed that he had understood it to be one of the aims of that Society to discover the differences between the different races inhabiting the globe. It seemed to him that Mr. Heath, as an officer of the Society, committed self-stultification in raising such an objection. The characteristics of the strongest element in any nation might fairly be considered the national characteristics. He thought it most probable that he had made mistakes in

treating a subject of such magnitude, but he contended that no real errors had yet been pointed out, that the plan he had adopted was scientific, and that the subject could be scientifically treated only by that or some similar method. He had taken a great deal of trouble to arrive at the truth, and had not, as Mr. Heath appeared to have done, taken for granted the first statement he had met with on the subject of the Pelasgians or Phœnicians, and believed it to be history. With regard to Mr. Mayhew's book, on which it had been said he had founded his opinions of the Germans, he had indeed read that among many other works; but his opinions of German character had been formed partly from his own slight acquaintance with the Germans and their literature, but principally from the writings of authors popular among the Germans themselves. He had only further to remark that no one had even attempted to controvert his two leading propositions, the first of which was that the English were psychically very like the ancient Greeks; the second, that the English were psychically very unlike the modern Germans.

The meeting then adjourned.

MARCH 6TH, 1866.

T. BENDYSHE, Esq., M.A., V.P.A.S.L., IN THE CHAIR.

The minutes of the previous meeting were read and confirmed.

The names of the following gentlemen, elected Fellows and Local Secretaries were then read:—Francis Campbell, Esq., M.D., Yarban, New South Wales; Jacob Epstein, Esq., 11, Newgate Street, E.C.; Alexander Colin Fraser, Esq., Colchester; Henry Webster, Esq., 10, Tokenhouse Yard; Major H. C. Grove Morris, R.M.A., H.M.S. *Resistance*, Malta. *Local Secretaries*.—J. Hillier Blount, M.D., Assam; Henry Sewell, Esq., Real del Monte, Mexico.

The CHAIRMAN regretted to have to announce the illness of the President, Dr. Hunt, which prevented him from being present. He then directed attention to a large collection of books on the table, which had been presented to the Society by Mr. S. Edwin Collingwood, who had previously made many contributions; and he thought their special thanks should be given to him for the crowning present with which he had enriched the Library of the Society.

The thanks of the meeting having been given to Mr. Collingwood, the following list of presents was read:—Duns, Science and Christian Thought (T. Bendyshe, Esq.); Royal Society of Literature Transactions, vols. i-vii (the Society); British Medical Journal, 1865 (Dr. Ryan Tenison); Skeleton from Milcote, near Stratford-on-Avon (Dr. B. Foster); Catlin, North American Indians; Campbell, negro Mania; Fleming, Travels in Mandchu Tartary; Freke, Origin of Species; St. John, Four Conquests of England; Burton, City of the Saints; Pim, Gate of the Pacific; W. H. Hoskins, Winter in Upper and Lower Egypt; Burckhardt, Egypt and Nubia; Petherich, Egypt, the Soudan, and Nubia; Kinglake, Invasion of the Crimea; Huish, North-West

Passage ; Mackay, Popular Delusions ; Wingrove Cooke, China and Lower Bengal ; Hone's Ancient Mysteries, and a god (S. Edwin Collingwood, Esq.).

Mr. A. HIGGINS read a paper—*On the Orthographic Projection of the Skull*, of which the following is an abstract.—The paper will appear at length in the *Memoirs*.

After alluding to one of the main obstacles to the progress of craniology, the great difficulty of bringing together such a series of specimens of any particular natural group as would justify general conclusions, the writer proceeded to consider how the scattered specimens preserved in museums might best be rendered generally available for accurate study. He argued that the method of delineation advocated by Professor Lucae in his *Zur Morphologie der Rassenschädel* afforded the best and readiest means yet devised for effecting that desirable object. This method of delineation was the geometrical one, by means of which objects are represented as they actually exist extended in space, so far as this is possible on a plane surface. He exhibited the simple apparatus used by Prof. Lucae and explained how the drawings were taken. The apparatus consisted of a horizontally suspended glass plate, under which the skull was placed, and of an instrument affording a vertical axis of vision moveable upon the plate. The author then replied to the various objections which had been raised to this mode of delineation, the principal one being the assertion that the drawings do not represent things as they appear to the eye and as they alone exist as far as we are concerned. He maintained that they do convey to the mind the same general impressions as an inspection of the solid object, and therefore answer all the purposes of perspective drawings ; and that, in addition, they afford a means of comparing contours and of checking measurements such as no other substitute for the skull itself afforded.

The CHAIRMAN proposed thanks to the author of the paper, and suggested that the discussion of it should be postponed until the next paper was read, which was on a similar subject. He directed attention to some photographs on the table of the negro boy from Bunu who was exhibited at the former meeting, and especially to three photographs of the boy's hands, which showed, in the opinion of some gentlemen, an approximation to a webbed structure.

Mr. WESLEY read a paper—*On the Iconography of the Skull*—which will appear at length in the *Memoirs* ; in which he recommended the ordinary perspective method of drawing instead of the geometrical system advocated by Dr. Lucae and Mr. Higgins. He considered that drawings were valuable as standing in the stead of examination of the actual skulls, and that geometrical drawings did not perfectly subserve that end, and, since they do not represent objects as they appear to the eye, are more or less unintelligible. At the same time it did not appear that geometrical drawings would ever supersede tables of measurement. A few remarks followed upon cranial drawings generally—the number of views required, the importance of

uniform positions, etc. The paper concluded by some practical suggestions with regard to the application of photography to craniology.

The CHAIRMAN, in proposing thanks to the author of the paper, said he could not undertake to compare the relative merits of the two systems of delineation described; one of which was adopted by the Germans, and the other had the approval of Professor Huxley, for whom he begged to express the profoundest reverence.

Mr. D. GAY remarked in reference to the objection raised by Mr. Wesley to photographic drawings of the skull, that when the skull is photographed of the full size there is necessarily a great amount of foreshortening, but when the object is placed at a considerable distance there is no inaccuracy in the picture; and then by reversing the instrument a copy can be taken and a picture may be reproduced exactly of the size of life, and perfectly accurate. By that means an outline can be obtained so exact that it will accurately fit when compared with the skull. In reply to a question from the Chairman, Mr. Gay said the photographs of the negro boy were taken by him.

The Rev. D. I. HEATH observed that the papers that had been read described two methods of drawing objects, one of which professed to represent them as they actually are, and the other as they are seen. It appeared to him that something else was wanted. They required a picture which, by the application of certain rules, would enable them to measure the object and ascertain its dimensions. They wanted to know how the various points would look if they were travelling all round the object. If they sliced a skull into fifty slices it was said that the instrument on the table would give accurate representations of the whole, and if it gave ten or twenty different pictures of the same skull with all the plans, that was what was wanted. The orthographic system seemed to him to be the better of the two, for it gave one plan quite accurately without regard to distance, while, according to the other system, the picture of different skulls in order to be accurate must be taken at exactly the same distance from the eye.

Mr. C. CARTER BLAKE said the two excellent papers that had been read were amongst the most important that had been submitted to the Society since its foundation. Mr. Higgins's ingenious arguments had set the orthographic system clearly before them, and he hoped it might be better received here than it had been in Germany. Von Baer had expressed the opinion that "however many measurements may be tabulated they cannot stand in the place of general impressions made by the skull itself examined from various points of view." Professor Busk, the eminent craniologist, adopted the system of perspective drawing by the *camera lucida*. But setting aside the value to be assigned to different authorities on the point, abandoning the *argumentum ad verecundiam* for the *argumentum ad rem*, the question was: is the orthographic system right in itself? He had doubts of it. Professor Lucae, in his work, *Zur Architectur der Rassenschädel*, exhibited drawings taken from that instrument which were of an exceedingly rough character, even apparently inaccurate, and did not

allow of any comparison with the skull. The next paper of Mr. Wesley referred to some points of great philosophic importance with respect to the exact position in which the skull should be placed. He had stated that with one or two exceptions all fixed lines were more or less arbitrary, except a line along the basicranial axis from the foramen magnum to the ethmoid bone. That statement was true in the present state of knowledge—at least in England. Professor Welcker, however, had laid down rules by which this basicranial axis may be roughly estimated on the outside of the skull. He took a line from the tip of the mastoid to the forward part of the external angular process of the frontal, and this roughly corresponded with the basicranial line. Why two lines that had no apparent connection should so frequently agree he could not tell, but as that method afforded the means of attaining a fixed line, it was convenient it should be used. After some further remarks on that part of Mr. Wesley's paper, in which he urged the necessity of having some fixed vertical or base line adopted to regulate the position of the skull when drawn, Mr. Blake proceeded to notice the concluding observations in reference to photography. He thought Mr. Wesley was rather too hard on photographers. All his own experience of photographers, especially those who were members of the Anthropological Society, had shown him that they were able to tell him more about the correct method of representing a skull than he had been able to tell them. But photography was not applicable to that purpose in many instances, for the colour sometimes rendered the delineations obscure. He should have to show, later in the evening, a skull from Louth, which it would be useless to photograph, for the sutures were so faintly marked that they would not be distinguished by that process of drawing. If such a skull was to be illustrated, he should prefer to have it depicted by the simple perspective method of drawing, such as his friend Mr. Wesley had adopted in the delineation of some skulls Mr. Blake had had the honour to describe before the Society.

Mr. H. BROOKES said they had had two very able papers read, and some very able speeches about them, but he could not understand from them what the object was they had in view. He wanted to know why, and for what purpose, the skull was to be measured? They had had one or two indications of the right method of measuring, but they should first ascertain why they measured the skull at all. If it were only to obtain so many lengths and dimensions they would be as wise at the end of their investigations as at the beginning. But if they had any definite object they might advance science by adopting the best methods. The only object he could conceive of measurement was to ascertain the contents of the skull, and the condition of those contents relatively to some central point, or to some other skulls. There was no use in blinking the question, that the mere knowledge of anatomy would not give any information as to the uses of the human system. The functions of the brain must be obtained by phrenological observations. They might assist phrenology by these measurements of the skull, but they could not thereby ascertain the formation of the brain. What was wanted was, to ascertain

the functions of the brain, which could not be done by measurements, though such measurements might be useful guides. He should be glad if their anatomical friends would give some information as to the first formation of the skull and the first portions of brain, and of the manner in which those portions are gradually developed in the embryo of man and of various classes of animals. In that way they might obtain knowledge of the functions of the brain, and ascertain the best method of making the measurements of the skull. He considered the base of the cranial cavity to be the only sure line of measurement.

Mr. J. FRED. COLLINGWOOD considered the two papers that had been read stamped that meeting as one of the most scientific that the Society had held. He was surprised that any one could cast a doubt on the usefulness of the means of measurement which had been explained by Mr. Higgins. The apparatus exhibited might be in its arrangements elaborate and clumsy, but those details were capable of improvement. It was the principle of the plan they had to consider, and there was, indeed, nothing new in the mode of delineating objects geometrically. The chief objection to Mr. Wesley's method was, that it depended for its accuracy on the skill of the manipulator. What was wanted was, an universally applicable method of drawing the skull so accurately as to form a scientific record of general utility. Mr. Wesley's method was to supplement his drawings by tables of measurements; but the method described by Mr. Higgins dispensed with tables and was of itself sufficient for scientific purposes. The geometrical method could be easily adopted with practice; it was like learning a new language, the value of which when acquired was at once perceived. Having made many drawings on that plan he was astonished that any one conversant with it should put in competition with it a system of perspective representation.

Mr. G. DIBLEY observed, in reference to the use of measuring skulls, that the general object was to endeavour to ascertain the capacity of the intellect of the individual, and that it was probable the measurement of skulls might confirm the impressions of physiognomy.

Mr. T. V. ROBINS said his experience of drawing at the Government Schools of Design in Liverpool, where he had taken at least 4000 drawings, induced him to think that an artist could by free hand-drawing give as faithful a representation of a skull as any measurement made by such a machine as that exhibited by Mr. Higgins.

Mr. CONRAD COX observed that the question before the meeting was not the use of drawings of the skull, but how such drawings could be best made; and the question of use need not be entertained at all. The relation between the capacity of the brain and intellectual power was an interesting consideration, but the question was not then before them. There were several other things besides mental capacity to be considered. There were many different kinds of skulls; there were, for instance, the long, the short, the round, and the rafter forms of skull, and the investigation of those different forms was an interesting study, bearing much on the question of race. The

outlines of the other bones were measured, and why should they not measure those of the skull? They were all parts of our body, and it must be taken for granted that if there were use in measuring the bones of the trunk and limbs, there must be use in measuring the skull. The index of mental capacity such measurements afford was only one part of a great subject.

Mr. BOLLAERT agreed in thinking that was not the time to go into the question of the relation between the form of the skull and intellectual capacity. In the work of Morton a multiplicity of reasons was given for measuring skulls. That author had examined them in every possible way, and the conclusion at which he first arrived was, that the greater the quantity of brain the greater the amount of intellect. In the latter stages of his researches he became doubtful on that point, and he then proceeded to study the positions of different portions of the brain. It was a question, however, on which they had a great deal to learn, for phrenologists had yet taught them very little. He trusted the Society would produce men who would go into the subject fully, and that important results would follow their researches.

Dr. LANGDON H. DOWN said it would be a great advantage to have one uniform system of measurement, and he thought the Society were much indebted to the gentlemen who had brought the subject under their consideration. In examining skulls he was of opinion they should not limit attention only to their size. The quality of the brain was of more importance than the quantity. One point had hitherto been overlooked, which was the want of symmetry of the cranium which had been observed in some idiots, one side being different from the other.

Mr. H. BROOKES explained that he did not object to the measurement of the skull, but he thought that there was a necessity that they should in the first instance ascertain the object they had in view; so that in measuring the skull it should be placed in a position likely to elucidate the facts they wanted to obtain.

Mr. A. HIGGINS, in replying to the observations made on his paper, said, that he thought he had by anticipation answered in the main the objections urged by Mr. Wesley against the geometrical system of delineation. There were, however, one or two points upon which he would like to enlarge. He had not claimed for geometrical drawings that they represented objects absolutely as they appear to our eyes—nothing but stereoscopic pictures could do that—but what he did maintain was that they did so nearly, as to answer the purpose which Mr. Wesley had himself asserted to be the chief use of drawings in craniology, namely, to convey to the mind the same general impressions as is gathered from an examination of the solid object. As an additional piece of evidence that geometrical drawings do most effectually subserve this purpose, Mr. Higgins stated that Professor Lucae had had a careful geometrical drawing made of a well-known bust of Sömmering, and had shown it to several artists of eminence, none of whom detected that it was not a perspective drawing. Even the sculptor of the bust confessed that he should not have known that

the drawing was geometrical had he not observed that the base lines of the two visible sides of the lower part of the bust made a continuous straight line instead of forming an angle. Mr. Higgins exhibited this drawing to the meeting, and requested the gentlemen present to judge for themselves. He ventured to say they would agree that there was a vivid reality about the geometrical drawing such as even the perspective one did not exhibit. He proceeded to remark that the affording a general idea of the shape of skulls was after all only a secondary object in geometrical drawings of these objects. That object would be gained almost, though not equally, as well by free-hand drawings. The great value of orthographic projections was that by means of them, and by means of them alone, the curves of the contours of various skulls—curves so varying as to defy any mere mathematical treatment—could be compared with one another with wonderful accuracy. This was a point of great value in the examination of large series of skulls of any particular people, as in this way, not only would the mean form be more readily eliminated, but differences of form could be readily appreciated, which no mere craniology, or system of measurements, however elaborate, could possibly detect. Then, too, although geometrical drawings would not dispense with measurements taken on the skull itself, they afforded a most valuable means of checking them, and indeed many important measurements, for instance, those of the facial angle and facial triangle, were more readily taken on the drawing than on the skull. The value of free-hand drawing, and indeed of all perspective drawings, depended greatly upon the representations being all taken at the same distance from the object; but who should persuade artists to adopt one uniform rule on this subject? The difficulty at once disappeared if the geometrical method were adopted, as in that case it makes not the slightest difference if the plane of the drawing be near or far off from the object. Nearly all the objections to ordinary perspective drawings, applied with at least equal force to those taken with the aid of the camera obscura; to say nothing of the fact that many persons can never succeed in using that instrument. The object was so near to the point of sight as to cause a very appreciable distortion. It was impossible to see anything approaching to the outline of a true median plane of a rounded object when viewing it from a single point at a small distance. This was a fact recognised and allowed for even in the case of the heavenly bodies, vast as is their distance from the observer; and accordingly astronomers in their drawings of sun, moon and larger planets, did now actually adopt the geometrical method of delineation. The plan mentioned by Mr. Gay of taking photographs of an object placed at a considerable distance and afterwards enlarging the image was a very valuable, although not a new one. It was a step towards geometrical delineations which represented an object viewed from a very long distance, in fact, an infinite distance. Mr. Blake had cited one of the highest authorities on such a subject, Von Baer, as disapproving of the geometrical system. If Mr. Blake had not misunderstood Von Baer it was a somewhat singular fact that the magnificent plates of that veteran anatomist's compa-

ratively recently published *Crania Selecta*, were geometrical drawings. He (Mr. Higgins) would also venture to cite the name of Dr. Paul Broca, who had himself designed an instrument for giving projections of the skull, and had ably advocated the importance of such projections in his paper "Sur les projections de la tête." As to the rough character of Lucae's drawings in the *Zur Architectur des Menschenschädel*, it was right to say that they were taken many years ago, before Lucae had invented the instrument which had been exhibited that night. Mr. Collingwood had stated, what no one would more readily allow than Dr. Lucae himself, that the instrument exhibited was capable of improvement; and he (Mr. Higgins) might mention that a most important improvement had recently been suggested to him, which although it would considerably increase the cost, would, he believed, remove all the practical objections which could be urged against the instrument. In reference to the question of Mr. Brookes, as to the object of measuring and drawing skulls, Mr. Higgins remarked that the first stage of every science is the classificatory; that skulls present us with a large series of phenomena, amongst others, diversity of form; and that we must, as a first step towards a knowledge of the cause of such diversities, adopt some means of recording and classifying them. If it be asked why we fix upon the skull for our special study, the answer is that there is no other group of bones in the skeleton which presents the same complexity and consequent capacity for exhibiting varieties of form and structure.

Mr. WESLEY briefly replied to some of the remarks on his paper; and, referring to the Neanderthal skull, he observed that some of the misapprehensions respecting the condition of its sutures had been founded on an imperfect photograph sent to England by Dr. Fuhlrott.

At the conclusion of the discussion on the two papers, Dr. G. D. Gibb begged to make a remark on the photographs of the hands of the negro boy from Bunu, which had been exhibited, and which had been stated to show indications of his being web-footed. Dr. Gibb said that the photographs did not show anything of the kind, for the hand was in every respect well formed.

Mr. HIGGINS said that on examining the hands of the boy it would be seen that the loose skin between the knuckles was further down than is usually the case in the hand of a European.

Mr. C. CARTER BLAKE begged to coincide with Mr. Higgins's statement, and reaffirmed the fact which he had laid before the Society.

Mr. C. CARTER BLAKE then read a paper on *Certain Simious Skulls, with especial reference to a Skull from Louth, in Ireland*. (This paper will appear at length in the *Memoirs*, with illustrations.)

The paper gave a minute description of a skull which had been presented to the museum of the Society by Capt. Montgomery Moore, and which exhibited a condition of the sutures closely resembling the conditions in the skull "No. 1029 of Davis," and the skull from the Neanderthal. The sagittal, coronal, and peri-sphenoid sutures were all more or less closed, probably in early life, and Mr. Blake thought that this premature synostosis had been the cause why the brain,

which had to expand under a plate of bone in one solid piece, developed a form of skull of great length, and with a large posterior and small frontal development. Mr. Blake added that he had not subjoined to the paper the usual table of measurements, as he preferred to postpone giving the tables, and to submit a detached comparison of forty or fifty skulls together, according to the plan that had been adopted by M. Pruner-Bey in the Anthropological Society of Paris.

The CHAIRMAN remarked, that after the elaborate papers read that evening, they should return thanks to the authors of them, especially to Mr. Higgins, for having removed the reproach that they were only a semi-scientific Society.

Mr. HIGGINS observed that Professor Huxley had lately impugned the statements made at the meetings of the Society as to the form of the Neanderthal skull having been produced by the premature closing of the sutures, and the interest of the paper just read consisted in its establishing the fact that a similar closing of the sutures, accompanied by a similar form of skull, appeared on the specimen before the meeting. He wished Mr. Blake had compared exactly the contours and dimensions of the two skulls, and had stated in detail the differences as to the closing of the sutures; because we should then have been able to test the premature-synostosis theory by applying to these cases the well-ascertained law that such synostosis hinders the expansion of the skull in the direction at right angles to the suture affected. He failed to see that any evidence had been adduced to show that the closing of the sutures had taken place in early life; and he asked why the peculiarity of form should not be regarded as a race character?

Mr. MACKENZIE said that when Mr. Blake read the same paper at the meeting of the British Association at Birmingham, Dr. Barnard Davis had stated he fully agreed with Mr. Blake in every respect in his remarks on the Neanderthal skull, as reported in the *Transactions* of the Society.

The CHAIRMAN asked whether anything peculiar had been discovered on the skull, and whether it bore any of the monkish characters which were said to mark what had been called "apostles' skulls"?

Mr. C. CARTER BLAKE referred to a paper of Dr. Thurnam, recently published in the *Natural History Review*, in which he gave the measurements of early British skulls, and pointed out the numerous instances of synostosis observed by him. Dr. Davis, in his paper on the subject, observed that they exhibit indications of this peculiar deformation having taken place at an early period of life, and he had reasserted that opinion in a quarto volume since published. To that work he (Mr. Blake) begged to refer; and he expressed the belief that the skull presents a certain abnormal form that had been produced by premature closing of sutures. If the peculiarities were of race character, how was it that so few skulls of that form have been discovered? But M. Pruner-Bey says the

Neanderthal skull belonged to a race of Celts, who are by no means an extinct race; it was therefore far more possible and likely that the abnormal form was produced by the closing of the sutures than that the skull was the "missing link" between man and the lower animals. He considered the Neanderthal skull, as an indication of race, to be "lost, lost, irretrievably lost."

The meeting then adjourned.

MARCH 20TH, 1866.

JAMES HUNT, Esq., Ph.D., F.S.A., F.R.S.L., PRESIDENT, IN THE CHAIR.

The minutes of the preceding meeting were read and confirmed.

The following gentlemen were announced to have been elected fellows and Local Secretaries:—Thomas Wilkinson, Esq., 7, Falkner-street, Liverpool; Joseph Gill, Esq., Lagos, W. Africa; Robinson Hudson, Esq., L.R.C.S., Southampton; Lieut. Wilberforce Clarke, R.E., Stanton Rectory, Winchcombe, Gloucester. *Local Secretary*.—Henry Mills, Esq., F.R.G.S., Abbeokuta, W. Africa.

The donations to the library since the last meeting were announced as under:—Lawrence, Blumenbach; Blumenbach, *Abbildungen natur historischer Gegenstände*; Gabet, *Traité élémentaire de l'homme*; Bory de St. Vincent, *Essai Zoologique sur le genre humain*; Cabanis, *Rapports du physique et du moral*; Hodgson, *Aborigines of India*; Lacépède, *Histoire Naturelle de l'homme*; *Tableau naturel des rapports qui existent entre Dieu et l'Univers*; Haworth, *Anatomy*; Stewart, *Philosophy of Sense*; Williams, *Missionary Enterprises in the South Sea Islands*; Rivero and Tschudi, *Peruvian Antiquities*; White, *Regular Gradation in Man*; Wilson, *Missionary Voyage to South Pacific*; Foster, *Voyage Round the World*; Jarrold, *Form and Colour of Man*; Marsden, *History of Sumatra*; Lacépède, *Agès de la Nature*; Camper, *Orang-outang*; H. Spencer, *Principles of Biology*; Stuart ii Kuyber, *Der Mensch*; de Luc, *Letters of Geology*; Frankenaer, *Palingenesia*; Reaumur, *Art of hatching Fowls*; Derham, *Physico-Theology*; Leslie, *Early Races of Scotland*; Strauss, *Life of Jesus*. (The above works presented by T. Bendyshe, Esq., V.P.A.S.L.) *Transactions of the Ethnol. Society*, vol. iv (the Society); *Smithsonian Report, 1864* (the Institution); *Eisotheism* (the author); *Social Science Review* (G. A. Hutchison, Esq.); *Girdle worn by Mpongwe women* (R. B. N. Walker, Esq.); *Food, use, and beauty of British Birds* (C. O. Groom Napier, Esq.); J. E. Morgan, Esq., *Danger of Deterioration of Race* (the author); *Remarkable Embassies of the East India Company of the United Netherlands to Japan* (A. Higgins, Esq.).

MR. C. CARTER BLAKE directed attention to a collection of skulls on the table, and to some bronze implements which he said Captain Tupper would explain.

Captain A. C. TUPPER said: We are indebted to Mr. Layton, jun. (now present) for the exhibition of the specimens upon the table, and I

hope that the members will determine whether these skulls are Roman or British. It is most interesting to remark that the locality in which these human remains are dredged up, together with bronze swords, spear heads, daggers, celts, stone as well as metal, also British pottery (no Samian ware), iron implements, bone hammers, stags' antlers, etc., is the Thames at Kew; all these relics of the olden time having been obtained within one mile of either side of the bridge. Many bronze leaf-shaped swords are met with in the gravel formation at Battersea, where antiquaries suppose a battle must have taken place; the distance between that place and Kew is eight miles by water, and I do not think that an engagement could have been sustained so long for such a distance, as in those early times all that part of the country was marsh and scrub-wood, quite unsuited for a fight. Possibly these skulls may have belonged to those brave men who defended or tried to pass the ford, the river being only a few feet deep at high water; that there was a contention here is evident from one of the crania having two sword cuts upon the left parietal bone. Quantities of human bones are met with by the dredgers, who have great fear and superstitious dread of such articles, so, whenever a skull or other osseous fragment appears in the buckets, they are at once heaved overboard. I mention this in order that we may fully appreciate Mr. Layton's dexterity in obtaining, and his kindness in submitting this collection to the Society. I conclude these remarks by stating that he is ready to answer any questions as regards locality, but he leaves us to determine the anthropological distinctions of the eleven skulls now before us.

On the motion of the President the thanks of the Society were given to Captain Tupper and Mr. Layton.

MR. C. CARTER BLAKE said it was only on the previous Saturday that the specimens had been placed in his possession for exhibition at the meeting, and he regretted that he could only offer the result of a cursory examination of them himself. He hoped at some future time to lay before the Society a more accurate explanation than he could now give. There were eleven skulls, two of which were similar to those of Gallo-Roman type derived by our President from St. Acheul. There was another of them, very interesting, as it exhibited a peculiarity of ancient British skulls, and noted by Dr. Thurnam, who had stated that in a large number of those skulls it was observed the sutures had been closed at an early period of life, producing an abnormal form. The skull on the table, to which he referred, was a similar example of the early closing of the sutures, which produced the class of skull called by Thurnam *klinocephalic*. The skulls generally resembled those of early British, but two were Roman, and one was something like the skulls from the "river beds." One of the skulls was very much marked by sword cuts, but it could not be determined by what kind of implement the cuts had been made, or whether they might have been made by the bronze swords found near the same place, which were certainly Roman. Only four of the skulls presented distinctly identifiable characters at a first glance. Two there

were certainly Roman ; one was associated with Celtic skulls in character, and one resembled the river-bed skulls, which might possibly have preceded the "Celtic" race.

At the request of the President, Mr. Layton consented to allow the specimens to remain in the possession of the Society for a short time to allow of their being more carefully examined.

The following paper was then read : *Notice of the Brochs and the so-called Picts' Houses of Orkney.* By GEORGE PETRIE. (This paper will appear at length in the *Memoirs*.)

The author pointed out that besides the ordinary barrows or grave-mounds in Orkney, there were many tumuli which were ancient structures, and which were indiscriminately grouped by the natives under the title of Pict's House. Several varieties of these structures were known in Orkney, the author classifying them as "brochs" and as "Picts' houses." The former are circular towers of fifty to seventy feet diameter, and sixteen to seventeen feet high. The circular wall around them forms two concentric walls, with a gallery or passage between them, similar to that found in the Zetland brochs, which are less ruinous than those of Orkney. The nearly perfect broch of Mousa, in Zetland, is upwards of forty feet high. Mr. Petrie described the broch in the Isle of Burray, giving careful measurements of the compartments therein, and containing articles of stone, bone, bronze, and iron, the latter having been probably accidentally introduced. He drew no conclusion as to the age of the broch of Burray ; but in the case of the broch of Okstro, in the parish of Birsay, the order of superposition of stone kists belonging to the bronze age, in soil above the ruins of the broch, led to the inference that the broch itself was older than the stone kists found above it. Forty brochs at least were known in Orkney, and these were also to be found in several of the northern counties of Scotland. The Picts' house, on the other hand, is of a conical form, externally resembling a large bowl-shaped barrow. Its masonry is solid, and its entrance is by a long, low, narrow passage, the walls converging to the top ; no implements are found in the Picts' houses, but the bones of domestic animals are plentifully found therein. Mr. Petrie considered that the Picts' houses were tombs, or chambered cairns or barrows. He stated his opinion that Maes-howe was a structure of this class, and concluded by pointing out that the discovery of certain uniform characters inscribed on the brochs, the Picts' houses, and the barrows, suggested the idea that they were the remains of the same people.

THE PRESIDENT proposed the thanks of the Society to Mr. Petrie, their zealous and able Local Secretary in the Orkney Islands. The paper was the continuation of a subject that had been brought before the Society by Mr. Laing in which he considered the prehistoric remains of Caithness. A report on the same subject had been made by Mr. Anderson and Mr. Shearer, which he called on Mr. Blake to

read: *Report on Ancient Remains of Caithness.* By JOSEPH ANDERSON, Esq., Loc. Sec. A.S.L. (This paper will appear at length in the *Memoirs*.)

This paper was intended to offer a description of the remains which had been investigated in the county of Caithness by Mr. Anderson and Mr. Robert Innes Shearer, on the part of the Anthropological Society, in the application of a fund which had been described by certain members thereof. The author classified the ancient remains according to the terms used by the country people, who divided them into "grey" and "green" cairns. The former were also known under the title of Picts' cairns, and the latter as Picts' houses. He described in detail the Picts' house at Kettleburn, with its contents of pottery and remains of domestic animals, as well as manufactured objects of bone and stone; the Pict's house at Bowermadden, containing a very large proportion of manufactured articles, amongst which were the carved antlers of deer; the Pict's house at Old Stirkoke, where a large kitchenmidden of gnawn and chipped bones; the grey cairns at Yarhouse, Thrumster, divided into compartments, and showing within it evidence of three sorts of interment; the "chambered long cairns with horns" at Camster, the largest conical cairn in Caithness; the "chambered short cairn with horns" of Ormiegill, near Ulbster; large round cairn at Camster; small cairns enclosing cists; and groups of cists without cairns. He further described the standing stones which are found arranged in a horseshoe-like form at Stemster. Detailed measurements were given of all these structures, and the author concluded by the expression of his belief that the ancient inhabitants of Caithness were not in so barbarous a condition as had been implied by some persons. The specimens illustrative of the paper were presented by the author to the Anthropological Society's Museum.

The PRESIDENT remarked that the report just read was the result of researches undertaken with the aid of a small donation sent from the Society, not, indeed from the general funds, but from the receipts of a subscription contributed by a few members for the purpose. They were much indebted to Mr. Anderson and to Mr. Shearer, who were the most zealous archaeologists in the county of Caithness. Mr. Shearer had, indeed, sent a separate paper, in which he expressed a difference of opinion in some respects from Mr. Anderson, which paper he requested Mr. Beavan to read.

"Thrumster Cottage, Wick, N.B., Jan. 26, 1866.

"DEAR SIR.—I herewith send you a rough sketch of a group of standing stones near Yarrows Loch on this estate. The only tradition connected with them is that a battle was fought on the spot, but what battle or by whom fought no one can tell. The story is of no importance, as every similar group in the county has the same tradition attached to them. These stones are disposed in a sort of parallel rows. The rows themselves at unequal distances, but the stones in each row are many of them equidistant from one another, those

nearest to each other being six feet and a half apart, and those furthest seven feet nine inches apart. If you look from the end of the sketch you will see that there are seven rows of these stones, and in the rows you will see many blanks; but though I have left it blank, I still believe that many of the blanks can yet be filled up by digging in the peat which has overgrown nearly all them. Some stones have, however, evidently been removed from idle curiosity, and some for building, as the pits whence they were taken still remain open. The number of stones I have here shown are about one hundred, and I have not omitted one that is visible above the peat. These are much fewer in number than the group visited by yourself and Mr. Anderson at Clyth, and of which I will try to send you a sketch by-and-bye. I also send you a ground plan and section of a cairn we opened at Camster, also a ground plan and section of one opened at Ulbster, and of both of which you will have the particulars from Mr. Anderson's paper when he sends it up. But as I presume the plans and papers sent by Mr. Anderson to be laid before the Society are the property of the Society, I send these for your own use. You will see that the Ulbster cairn is a short one with crescent-shaped ends, whereas those you saw at Yarrow are long cairns with crescent-shaped ends (and in one of which the beads were found), and the difference in length I presume will be found to be the chief difference when they are properly explored. Internally, all the long, short, and round cairns that have yet been opened have a striking similarity both in the shape of the chambers, their number, and the mode of dividing them. My friend Anderson and myself are rather inclined to differ in opinion as to the original intention of these cairns and the value of the remains found in them. I can see nothing in the pieces of broken pottery, burnt and half-burnt bones, and weapons or implements found in the 'floors' of the cairns, but a refuse heap or kitchen-midden on a small scale, and the fact of human bones mixed in the heap does not alter my opinion. We have now opened four cairns this season, and in every one of them there is a 'floor' of about six to nine inches thick, composed almost entirely of ashes, wood charcoal, burnt and half burnt bones of many sizes and kinds, with fragments of pottery (and I hold it to be very important that no vessel of pottery has been found in any of them entire except in one single instance, and that was evidently buried in the 'floor' after it was formed). In the case where this single whole vessel was found, a cist was formed on the *top* to the 'floor' and not into it, and within the cist the vessel was laid about two or three inches under the surface of the 'floor'; and scattered through the whole extent of the mould, within the line of the inside of the cist, the lignite beads were found, but not one outside. In digging out this cist, the 'floor' was found to be of a different consistency from that outside the cist, being much looser and easier removed, and evidently comparatively much more recent than the rest of the same chamber. Then we never found two pieces of pottery in such juxtaposition as imply that they belonged to the same vessel; but on the contrary, the pieces of pottery lying nearest to each other in these 'floors' are of different patterns and different composition,

showing plainly that they were not placed or buried there in an entire state, but thrown among the other refuse when broken and useless. Again, nearly all the human bones we got were on the top of this floor, except it might be some very fragmentary portions, or some teeth that I found in the Ulbster cairn *in* the floor and not *on* it. But this cairn had also human bones on the floor; and in the Camster one, the human bones were found in such apposition among the rubbish and stones over-lying the floor as would lead to the belief that they were originally placed in a sitting position, or else had been disturbed previously to our finding them; however, we had no evidence that that part of the cairn where the bones were found had been disturbed, except the fact that bones were found not lying on the floor but sometimes more than a foot above it, and mixed with the stones that filled the passage. Besides, if we consider that it was all the upper portions of the skeleton that we found in these passages (the lower being invariably wanting), I think it pretty clearly proves that the bodies were first placed there in a sitting posture, as those portions of the skeleton that lay in contact with the wet floor would be sure to decay long before those that were a foot above it and quite dry; nor is this Camster cairn to be looked at as exceptional, because in some of the others the same thing occurred. And in those opened by Mr. Rhind, those cairns that seemed least disturbed always had the passage filled with stones, among which were found bones above the level of the floor, and to me this appears to have been a second, or perhaps a third use to which these cairns were applied. This filling of the passage with stones and human remains being, at all events, evidently the last.

“Now, sir, from this as well as many other facts that to be appreciated must be seen, I must say (though here no one but myself thinks so), that to me it appears that the original intention of these cairns was for dwelling-places, however inconsistent with our notions of a comfortable home it may appear. The Caithness gypsies at present sleep in spaces not larger than a single chamber of one of these cairns—even a family of six or eight. But it may be objected, that if these floors are really refuse heaps they are very small and could not be used as such for any very great length of time. But if we look at the fact and consider the very large quantity of food and the small quantity of refuse that the vertebrate animals produce when compared with the molluscous, especially when we know that in these cairns the refuse of the former were reduced to their smallest possible bulk by fire, whereas the latter in the true kitchen-middens were not so reduced.

“Then, again, we must consider the poor means at the disposal of these people for the capture of vertebrate animals as well as the scarcity of such animals themselves, and we can hardly believe that any large number of people, furnished with such implements of the chase as the samples they have left behind them, could maintain themselves for any length of time in any one district. We are therefore forced into the belief that these people must have led a nomadic life, and may have been the same that began the kitchen-middens on the coast.

And I believe it will yet be found that the upper and outer crust of these coast-middens are much later than their inner and first-formed parts. The other cairns in this county are as yet almost unknown, for except one 'green cairn' opened by Mr. Rhind at Kettleburn, near Wick, none else have been properly explored, though many have been destroyed, and the relics found in some have found their way into both public and private collections, and from no proper account having been taken of them at their finding, no great value can be placed on them as tending to show whether the 'grey' or 'green cairns' are the oldest. Those we call grey cairns are such as you saw at Yarrow, and are composed of grey stones chiefly, without a covering of earth or mould; the green cairns are covered with mould and thickly grown over with grass. But it appears from the excavation we have made about these gray cairns, that they have all once been built on the outside, and therefore the term cairns as applied here is wrong, for a cairn means a lot of stones thrown together without any attempt at building. And not only does it appear that they had one outer wall covering or finishing the whole outside, but that they had in some cases several inner ones, over and above which the last was added, perhaps at a later period, or when the places were converted into sepulchres. In some of the kitchen-middens, or at least shell-mounds on the west coast, pins of a fine finish and differing nothing from those in use to-day have been found, showing that such molluscous food was used till very lately, and the shells disposed of in manner similar to the oldest of these mounds. I should have mentioned, that in some of the cairns we opened there were evidently two 'floors', one over the other, with a rough pavement or flooring of small flat stones, showing a second occupation. This upper floor has been in every case very thin compared with the other, frequently nothing but a thin crust of ashes and charcoal.

"These cairns seem first to have been used (whether as receptacles for the burnt dead, as some say, and I believe doubtful) as dwellings; then as places in which they laid the ashes of their dead in urns; and last as sepulchres where the dead was disposed of in an unburnt state. If any future evidence yet appear in these cairns that will alter my opinion I will be very glad to do so. Do you not think it very remarkable that no entire skull has yet been found in Caithness? when every cairn we open presents several so decayed that they cannot be touched without going to pieces.

"I am, Sir, your most obedient servant,

"R. I. SHEARER.

"I also send you a sketch of some standing stones found near and radiating from a grave which Anderson and myself opened, and in which an urn was found."

The PRESIDENT said that having visited both the localities described in the preceding papers, he considered it most important that the Society should have such full descriptions of them. When he visited Caithness he was struck with the enormous number of those grey cairns which were to be seen on every hill top. They were of prodigious

gious size, several of them being upwards of one hundred feet in length. During his visit one chamber was opened, and he had the opportunity of seeing how it was constructed. There were several chambers in the interior, all very regularly built. The popular idea was, that the cairns were places of interment, but it appeared from Mr. Shearer's paper that he did not think so, and in that opinion he was inclined to agree. Looking at the desolate state of the country and at the positions in which these cairns were placed, he was inclined to think that they had been originally intended not for places of interment but for dwellings, and that they had afterwards been used for burial. It was evident they had been so used in some cases, but that did not invalidate the idea that they were originally built for dwellings. With respect to the cairns with horns, he was not aware that cairns of that formation had been before discovered or noticed; there seemed to be much difficulty in determining whether the horns belonged to the original structure or were made afterwards. The discovery of cairns of that peculiar formation was a remarkable fact, and he considered that the money devoted by Members of the Society to the explorations in the Orkneys and in Caithness had been money well spent, though they had not succeeded in ascertaining satisfactorily the objects for which cairns had been constructed. He hoped that a small portion more of their funds would be appropriated to further explorations. During the whole of his trip to the Orkneys he had frequently heard of the discovery of skulls in different places, but in all instances the skulls had been either buried again or had been destroyed. The question, therefore, as to the nature of the cairns remained to be solved. In Caithness the Society had obtained permission to make further excavations, and he hoped that in the course of next summer the object would be prosecuted. This subject had an important bearing on Mr. Laing's views respecting the prehistoric period of these remains, and in Caithness they had a whole county open to them, throughout which these beautiful remains were thickly distributed. The iron implement discovered and noticed was an important consideration. Its discovery in a cairn was a fact well recorded, and it was likely to have an important bearing on the subject of the introduction of metal implements, and might throw light on the origin of the primitive inhabitants of the north of Scotland.

Mr. RALPH TATE pointed out what he conceived to be inaccuracies in the section of the strata in the diagram exhibited, and he urged the necessity of greater accuracy before any inference was drawn from the position in which the relics were found as to the relationship of man to the geological changes in the north of Scotland. We should be careful not to attach too much value to the occurrence of a nodule of iron ore in a cairn, or wherever it might be found. Such a nodule of iron ore, he said, might be forming at the present day, and it might have been a transported nodule, and have appeared where the cairn was built by the degradation of the boulder clay; or a pebble of iron ore at the top might have found its way to the bottom. The iron knife looked like a far more modern manufacture than the structure of the cairn. The beads found were spoken of as glass, but they were

clearly made of lignite-jet, the material being of a distinct vegetable structure ; for if of glass, they would be evidence of a considerable degree of manufacturing skill and intelligence. He considered it a question whether the cairns and brochs could not have been contemporaneous ; the brochs having been made for dwelling-places and the cairns for burial. The positions of the latter were most unfitted for dwelling-places in such an inclement climate as the north of Scotland ; in one place a cairn was placed on the top of a hill 1,500 feet above the level of the sea.

Mr. C. CARTER BLAKE stated that he had had a conversation the previous day with Mr. Thomas Wright, the distinguished antiquary, on the subject of the relics found in the cairns, and which he had examined. The iron knife he stated was identical in pattern with the Saxon and Scandinavian knives ; the bead was of the form commonly called a Druid's gem, or Druid's bead, which beads were supposed to be Phœnician. The bronze pin Mr. Wright pronounced to be a Scandinavian ornament. With regard to the animal remains on the table, Mr. Blake said the bones of the *Bos longifrons* were said to have been identified among them ; but there was in fact no difference between the bones of the *Bos longifrons* and those of the domestic ox of England at the present day. He agreed with Professor Owen, the founder of the species of *Bos longifrons*, that he could not ascertain the difference, and the use of the term was calculated to mislead as to the nature of the species. The specimen of a human jaw was interesting, as it afforded an example of great obliquity of the ascending ramus, and was somewhat similar to the Abbeville jawbone.

Rev. DUNBAR HEATH made some observations on the assumed progress of the arts from the south to the north, and considered that it is more consistent with the generally-admitted fact—that the intellectual qualities are developed by the wants of man—to suppose that the necessary arts at least were invented in northern latitudes and transmitted afterwards to the south. The difficulty of existence in high northern latitudes would naturally educate the human power to produce works necessary to provide for the support of life and for protection against the rigours of the climate. In that quarter of the globe, therefore, they might expect such works to be produced rather than in Central Asia, and the origin of the Aryan race is deduced in their own legends from a spot where there are ten months of winter, and only two of summer.

The PRESIDENT said the discussion that had taken place that evening was only preliminary to another on the same subject at the next meeting, at which Mr. Laing had been invited to attend, when five papers bearing on the question of the prehistoric antiquities of Caithness would be read.

The meeting then adjourned.

APRIL 3RD, 1866.

JAMES HUNT, Esq., Ph.D., F.S.A., F.R.S.L., PRESIDENT, IN THE CHAIR.

The minutes of the preceding meeting were read and confirmed.

The Fellows elected since the previous meeting were announced as follows:—Captain Christopher J. Barnard, 4th W.I. Regiment, Sierra Leone; Edmund F. Davis, Esq., Tavistock House, Tavistock Square; Sir John Gardiner, Bart., Reform Club, Pall Mall; Crewe Alston, Esq., 38, Belsize Park, Hampstead; Frank Wilson, Esq., 41, Arlington Street, Glasgow, and Fernando Po; Samuel Cheetham, Esq., Roslin Villa, Oxton, Cheshire, and Fernando Po; Captain C. R. Williams, 4th W.I. Regiment, Sierra Leone.

The following Local Secretary was elected:—Mark Antony Lower, Esq., F.S.A., Lewes.

The following presents were acknowledged, and thanks were voted for the same:—Official Report on the Andaman Islands (Dr. Hunt); Wilson, Philosophy of Classification (T. Bendyshe); Descriptive Catalogue of Rackstrow's Museum (G. W. Marshall, Esq., LL.M.); Garligietti, Dutch Anthropology (Dr. J. Barnard Davis).

Mr. HIGGINS stated that the following letter had been received from Dr. Calloway, the Local Secretary of the Society at Natal:—

“Spring Vale, Natal, Jan. 26, 1866.

“DEAR SIR—I notice in Blake's translation of Broca's work *On Hybridity in the Genus Homo*, p. 53, an allusion to the Australian custom of killing the weakest of two new-born twins, which the author finds it difficult to credit, thinking it ‘improbable and inexplicable’. At the same time he supposes that, in the precariousness of savage life, and the uncertain supply of nourishment, a mother who would not find it easy to rear one child, may resign herself to sacrificing one of twins to save the other.

“It is rather remarkable when infanticide has been so common a crime among the most highly civilised nations, that M. Broca should imagine that savages would feel any difficulty in committing such murders; and advance the opinion that if they killed either new-born Mulattoes for one cause, or one of twins for another, it would evidence so great a want of maternal love on the part of the females, as would warrant us in denying them the right to be regarded as belonging to the human race. But many things which appear absolutely improbable, and even impossible from a European standing point, are found on a more intimate acquaintance with savage races, to be common, every-day occurrences; and what we should regard as a crime, the savage often considers as a necessity, and even as a virtue.

“It is impossible to determine theoretically what shall be the result, in any particular case, of a contest between instincts. An instinct may be undeveloped, dormant, or suppressed by a stronger

instinct ; it would be a great mistake, therefore, to conclude from the absence of manifestaton, that it does not exist. The love of offspring is a very strong instinct among the natives of South Africa—stronger, perhaps, than any other, but the love of life. Yet parents would, under certain circumstances, leave their offspring to perish, or even kill their infants, to ensure their own safety, or even the probability of their escaping disease or death.

“But my object in writing is not to discuss a general question of this kind ; but to say that the custom of killing one of twins exists among certain tribes and families of Kafirs ; and to explain, for the information of Members of the Anthropological Society, the native reasons for the custom, which will be found to be a strange superstition, having for its object the preservation of the life of the parents, especially of the father.

“Among some tribes the birth of twins is of rare occurrence ; among others not unusual. With the latter the twins are allowed to grow up ; with the former it is regarded as a prodigy, and one of the twins is killed. The two children are carefully inspected, and the most delicate one has a clod of earth placed in its mouth, and is thus subjected to a slow death by suffocation. When dead it is buried near the doorway of the hut, and the *ikgena*, a dwarf aloe, is planted over the grave.

“The reason for this procedure is said to be that, if both were allowed to grow up, they would cause the death of one of their parents ; or, as they express it, ‘If both are allowed to live, there is some one who will leave them ;’ that is, one of the parents will die, and leave them orphans. The injurious influence supposed to be exerted by the twins on the father or mother may not manifest itself for many years, not till puberty, or not even till they are twenty years old. The woman who bears them, if both are allowed to live, is said rapidly to become old and incapable of bearing children.

“If the influence does not kill either of the parents, the twins will kill each other by inducing disease in each other. Such is the superstition, and it is evident that all twins can be readily made to fulfil the prophecies uttered at their birth by old crones ; for any disease, arising in the parents or in the twins themselves, will be ever regarded as having for its cause the survival of both the twins.

“It sometimes happens that a man, more sensible than the rest, or having the instinct of child-love more developed, objects to have either of his children killed. The old men and women of the village at once gather round him, and recall numerous instances in which fatal consequences resulted from allowing both children to live ; until at length fear overcomes his good sense and paternal love, and the child is sacrificed. In one instance a man, in whose family twin-births had been common, married the woman of a tribe in which they were unusual. In due course she gave birth to twins. Her friends assembled, and said it was necessary to kill one to ward off ill luck. The man objected, that to have twins was a natural thing among his people, and would not allow either child to be killed. When the twins were about fourteen years old, the mother became delicate ; of course her friends attributed her illness to the obstinacy of the hus-

band, and would not listen to the argument, that had one been killed she would have suffered from the same disease notwithstanding.

"The murdered child is buried near the doorway, it is said, for the sake of the survivor. It is supposed that the surviving infant will miss the companion to which it has been so long accustomed during intra-uterine life, and a soothing influence is thought to issue from the grave. When the child cries it is supposed to be crying and pining for its companion, and is taken to the grave, and carried backwards and forwards over it till it is quiet. It is also daily washed on the grave. This is why the grave is made so near the hut, as it would be inconvenient to go to the usual distance of graves, every time the child cries, to get it quieted by the influence of its fellow.

"The aloe is regarded in some way as the living representative of the dead infant; its spirit or shade is supposed to be in it, or to be hovering about it. When it is planted, its spines are carefully cut away that the survivor may play about it, and drag himself up by it, and make himself strong, as he would have done with his fellow-twin had he been permitted to live.

"A more strange, far-fetched, and inconsistent superstition can scarcely be conceived. You will see that scarcity of food, the difficulty of nourishing two children, the drag which suckling two infants would be on the mother's health, are questions which do not suggest themselves. But simply an imaginary influence, which it is feared will produce ill luck or death. The mother of the twins has little to do with the murder; it is done for her by the crones of the village. But she is aware of it and accessory, and not merely resigned to it.

"If a child is born during famine, it is sometimes killed in the same way by placing a clod of earth in its mouth. In this instance the child is sacrificed with the express view of saving the mother, and preventing her strength from being exhausted by suckling, when her own system is depressed by want. Of course these customs no longer exist where the British Government exerts its influence.

"There is a similar superstition as regards inheritance. If the father dies, leaving numerous large oxen, it is supposed necessary that the son should slaughter them, if not, it is feared they will cause his death.

"I am, dear Sir, yours truly,

"HENRY CALLOWAY, M.D., L.C.P.L.

"You will find allusion to similar superstitions in Tylor's *History of Mankind*, p. 117, etc., and p. 292, etc.

"To Alfred Higgins, Esq."

A New Reading of Shell Mounds and Graves in Caithness. By JOHN CLEGHORN, Wick.

It is with great reluctance I venture to question before the Anthropological Society of London the conclusions arrived at by Mr. Laing on the graves and shell mounds at Keiss; because I believe that any opinion which he may give on any subject, no matter what that subject may be, must be received with a deference that would not be conceded to one less eminent. As I can look for no such complacency, you need not wonder I have hesitated to bring before you views wholly at variance

with all he has taught ; but, from what I have seen of your President, I am sure, if you be like him, the facts and deductions I propose to lay before you shall have justice done them.

We in Caithness are much obliged to Mr. Laing for having examined the graves and the shell-mounds, and for having given us so very distinct and graphic an account of them. The mounds especially were a mystery to us all, and turning them over has made us wiser, and set us free to work in other fields. Many thanks to Mr. Laing. What we find fault with in him is, he has neither read aright the graves nor the shell-mounds, and that the conclusions he has arrived at are wholly erroneous. In venturing to give you a new reading of the graves, and shell-mounds I beg to say that I do not come new to the subject. The antiquities and the geology of the county have for many years had my attention, and I think it was I who suggested to Mr. Laing the propriety of his examining the churchyard mound—a hint that has brought him, if not all his fame as an antiquary, surely not a little. Permit me then to give my reading of the shell-mounds and graves at Keiss. Some years ago the late Dr. Hamel of Russia, he of Mont Blanc notoriety, when here, called my attention to the fact that on our rocks above high watermark there are the pittings of limpets, indicating that the sea is now receding, or the land rising, and similar indications were observed, he said, all round the coast. Since then I have never lost sight of that great fact, and I have found it to be a key that explained phenomena, which without it would have remained a mystery. I believe, with Hutton, that “the economy of nature has been uniform,” that this recession of the sea has been going on in our latitudes in past time as it is now going on ; and that the rate of this recession has been ascertained. When Mr. Rhind was engaged about Kettleburn, I then gave an account of what he was doing, and ventured to predicate that no Pict’s house would be found at a less elevation than sixty feet above high water mark ; I did so, because I had learned that the ascertained rate of recession in the Baltic is forty inches in the century. I and some friends happened to be on Noss Head when Mr. Laing was working in his harbour mound, and turning our glasses in that direction we had our attention called to the party at work, and, on my asking what they were about, I was told the party were opening a Pict’s house ; from that moment I lost all faith in Mr. Laing as a safe antiquarian guide. If Mr. Laing has found a Pict’s house there, said I, then the limpet markings on the rocks are incorrect, or Hutton no geologist. Notwithstanding all Mr. Laing has told you, my faith in the markings is as strong as ever, and so is my veneration for Hutton ; while the opinion I then formed of Mr. Laing as an antiquary has been strengthened.

I shall now tell you what I have ascertained regarding the mounds and graves.

The position of the Mounds and Graves.—When Mr. Laing had called our attention to the harbour mound, I paid it a visit, and found the base of the grassy hillock to be about fifteen feet above high water mark. Mr. Laing has told you that the raised beach on which are the graves, is ten feet above the high water level ; the Birkle hills are on

the same raised beach, and the churchyard mound is about forty feet above high water mark. The geological position of the harbour mound, the graves, and the Birkle hills appears to me to render it impossible they can be ancient. All geologists are agreed that our shores are now undergoing a change of level—that the sea is receding, or the land rising—and from observed facts they are satisfied the submergence can be traced from a height of 1700 feet. Mr. Robert Chambers, who has given this subject more attention than any other man, says, in his *Ancient Sea Margins*, “the shift of land has been effected from at least that height (1200 feet) with perfect equability throughout.” Mr. Chambers believes there have been pauses and oscillations in the shifts, but none of his facts seem to me to countenance his views. He infers oscillations from the existence of a set of phenomena called submerged forests. At the meeting of the British Association at Aberdeen 1859, I read a paper on the submerged forests of Caithness (see Report, page 101), and as all the so-called submerged forests around our shores have had an origin similar to those in Caithness, the idea of oscillations must vanish; and I am very sure a close observation of *beaches now forming* must send the pauses to the same limbo. Remove, then, the pauses and the oscillations from the received opinions on change of level, and we have as the faith of geologists, a slow recession of the sea, that has been going on for untold ages, and is now going on. A similar change of level has been observed on continental Europe from Gibraltar to the North Cape; while the American geologists have no doubt that a large portion of the American Continent has been raised within what they term the Quaternary period. From all I can gather it appears to me as well established that a slow recession of the sea has gone on, and is now going on from all latitudes north of the tropics and from thence southward, as Darwin lets us see, the sea is rising and submerging the lands. In the north we have wide continents: in the south the great feature is peninsulas. To me it seems we have in the north, the youth of the world; in the south, its old age; in the former, man in his best estate; in the latter, man in senility, unimprovable, dying out. A change of level such as I have shown being conceded, the question is, does it give us a chronology? Mr. Chambers seems to have had suggested to him the same question; but the only answer he gives is “that very great lapses of time have passed since the sea stood at our highest terrace.” “In several places in Scotland, says he, I have found the points or promontories of terraces bearing the faint markings of forts which had been erected by our savage forefathers for their protection. History scarcely hints at the age of these remains, so lost is it in the long night of antiquity.” Would Mr. Chambers have gone to a terrace ten or fifteen feet above high water mark, and there sought a relic of hoar antiquity? I trow not. Or having found, like Mr. Laing, “a very irregular grassy mound with loose stones lying about, and showing faint traces of a low outer circular wall or rampart” on a terrace ten or fifteen feet above high water mark, have jumped to the conclusion that this must be “an ancient building,” the abode of “aboriginal savages,” “cannibals,” by exploring which light would be thrown on the antiquity of man? No, no! he would not there have sought a his-

tory lost in the long night of antiquity, and Mr. Chambers is an antiquary; but he is, too, a geologist. He knows well an ancient people could not have raised "a rampart" on our present sea margin ten or fifteen feet above high water; but Mr. Chambers has studied ancient sea margins, and Mr. Laing seems not to know they exist. But have we any clue to the age of these terraces? Well, I think we have got something like it. The rate of the sea's recession has been arrived at with something like unanimity. In the Baltic it is estimated, from marks made to ascertain the rate, to be about forty inches in a century, while the Edinburgh geologists have lately announced that the ascertained rate in the Firth of Forth is about sixty inches in the same time. In Caithness no attempt has been made to ascertain the rate of recession there; but since we have ascertained that the sea is now receding, and has done so in past ages as now, and seeing the economy of nature is uniform over wide spaces of our globe, the probability is that our rate and that of the Baltic coincide, our latitude and that of the Baltic being nearly one. It follows then that the graves at Keiss cannot be more than three hundred years, nor the harbour mound more than four hundred years old. So far as geology is concerned, that science gives no countenance to Mr. Laing's conclusions on the graves, and the harbour mound; and there I would be content to let the matter rest. But there is a class who have no faith in the teachings of geology, therefore let us test the antiquity of the graves and the mounds by their contents, as Mr. Laing has done, and see how that serves him.

The Harbour Mound.—When I first saw the harbour mound a very striking fact arrested my attention, and it is this,—the shells composing the heap are nearly wholly limpet shells, *Patella vulgata*, and I said to myself, this surely, from its proximity to the castle and its remoteness from the village, from its isolation, must be the site of the houses of the fishermen of the castle. I, however, could find no written record of such connection, nor had the villagers any tradition that the castle fishermen had been there located; I therefore gave up that notion as untenable. But here are very curious facts. The harbour mound is on the shore immediately below the churchyard mound, and the shells of the latter are wholly, or nearly so, periwinkles (*Littorina littorea*), while the former are nearly wholly limpets. Mr. Laing has made the same observation, for he says, "This heap is composed mainly of periwinkle-shells, differing in this respect from the others nearer the shore in which limpets predominate." Mr. Laing has either thought it useless to inquire into the reason of the difference, or, having done it, has failed to solve the enigma. Had he resolved the problem, why the one heap is whelks and the other limpets, he would not have come before you and announced his having found "the relics of an aboriginal race, who probably came here as the rigour of the glacial period abated, from the south, with the hippopotamus and elephant." Since Mr. Laing has left us in the dark, I found I could make no progress in elucidating the heaps till the question was resolved, why is the one heap whelks and the other limpets? Why, I asked myself, should this be, and on learning that the churchyard mound is the "Kirk Toft," light began to glimmer on the darkness. On turning up Jamieson's

Dictionary I found "Toft" defined to be "a place where a message has stood." The "Kirk Toft" then being beside the Kirk-yard must have had on it the Kirk, but not only the Kirk for here is a midden, there must therefore have been the manse there, the residence of the ecclesiastics; and the whelk shells are the remains of the lenten meals of the priests; for, from the state of the weather, very often they could get neither cod, haddocks, flounders, nor sillocks, therefore had to keep the fast on whelks and limpets. But the clergy did not go to the "ebb" to collect their whelks and limpets, *that* we may be pretty sure of, it would be at variance with all known clerical habits. "We are fishers of men," said they, "not of whelks and limpets," therefore they had men who gathered their whelks and limpets, and the harbour mound is the site of the houses of those servants; and perhaps, too, of those who catered for the castle, for the clergy and the lairds generally pulled well together. But why should the clergy's mound be all whelks, and the servants' mound all limpets? Oh! it is the old story, the clergy took the best that was going—the best edible molluscs is with the priests; they took the whelks, the servants had to be content with the limpets! Since the above was written I have seen a passage from John Gwyn Jeffreys' *British Conchology*, that remarkably sustains the correctness of this reading of the two mounds. "In Shetland and the Orkneys," says he, "the people seem to have a powerful prejudice against this kind of food (the limpet), for we find in the life of Sir Walter Scott that the inhabitants of the rest of the Orcades despise those of Swona for eating limpets, as being the last of human meannesses." The same prejudice exists in Caithness; but from good authority, I know limpets were eaten in times of scarcity by the very poorest; in the memory of people now living, they boiled the limpets and ate them, and with the brew made oatmeal brose, called limpet-brose.

The periwinkle trade of Billingsgate is even now not a small matter. "The supply is about 2000 bushels per week," says Mr. Jeffreys, "for six months, from March until August inclusive, and about 500 bushels per week for the remaining six months;" but he takes no notice of limpets being there sold, therefore, I infer, when these two middens were formed, there were men of discrimination at Keiss nearly on a par with modern cockneys, and that the Keiss clergy's appreciation of whelks is just what might be looked for in gentlemen three or four hundred years ago forced to eat one or other of these molluscs. It is a pity Mr. Laing, when he saw the one midden to be limpets and the other whelks, and both belonging, as he says, to "an aboriginal people", satisfied with "rude banquets"—"cannibals," it is a pity he did not explain how it came about these "savages" were so discriminating when whelks and limpets came on the board? But let us look at the other component parts of

The Churchyard Mound.—Mr. Laing tells us, "The animal bones were less abundant and more generally chipped into small pieces than those found in the other mounds. It seems as if four-fifths of the food of the people by whom this most ancient midden had been accumulated had consisted of periwinkles, and as if animal bones had been a delicacy, from which every particle of marrow was extracted by

breaking them up." Let us see now whether Mr. Laing's inferences are legitimate inferences from his facts. Mr. Laing does not hint that this primitive people ate whelk shells—the presumption is they did not; therefore, when emptied, they were thrown on the midden, and, though forming only a small part of the food of the people, the shells would in fifty or a hundred years make a most conspicuous heap, while the other *refecta* of the kitchen would decay or be utilised. No evidence here, surely, that whelks formed four-fifths of the food of the people. But then the bones are chipped to get the marrow. Mr. Laing says "the larger bones had generally been broken to extract the marrow." Really there is no use in being so sensational about chipped and small bones being found in a midden; they are there chipped small, as now found, *just because meat-saws had not then been introduced into the manse kitchen!* Mr. Laing does not insinuate that the people who accumulated "this most ancient midden" dressed their food like the Otaheitans. He does hint that they kindled their fires by rubbing. "It has occurred to me," he says, "that these stones may have been used for obtaining fire by friction." But this is not the manner in which the Otaheitans got their fire; "they kindle a fire by rubbing the end of one piece of dry wood upon the side of another, in the same manner as our carpenters whet a chisel," says Captain Wallis. But our Caithness savages, having got a fire by "rubbing a stone," or no matter how, did they, to dress their food, dig a pit, and pave the bottom with shore stones, then kindle a fire in it with "scrubby underwood" and turf, take out the embers, raking the ashes on every side, and covering the stones with leaves, and laid there the *Bos longifrons* in his hide covered with the hot embers, and laid on them "*cazies*" full of limpets and whelks, covering the whole with hot stones and turf? Except by this mode of cooking, how else, without saws, and having only rude cleavers, made by a native smith, could the bones of the animals used for food be otherwise than "chipped small?" Let Mr. Laing make the trial of dividing an ox, sheep, or pig into boiling and roasting pieces for his family with a bad knife, a worse cleaver, and no saw, and see the mess he will make of the bones; chipped small doubtless they will be, just as he has found them in the Keiss middens. But Mr. Laing says, speaking of the harbour mound, "the larger bones had generally been broken to extract the marrow, but not into such small fragments as in the churchyard mound." May not this be that the cold joints of the manse were sent to the servants at the shore?—the kirk midden, consequently, ought to have the bones there in a more comminuted state than at the shore. Mr. Laing says, Mr. Roberts and Mr. Carter Blake, assisted by Mr. Davies, identified the *Bos longifrons* and *Equus caballus* fossils from those middens. Had they no doubts? Can it be there were in Caithness three or four hundred years ago the *Bos longifrons*?

The great auk, *Alca impennis*, being found, says nothing in favour of the antiquity of the mounds, seeing the bird has only disappeared in the memory of men now living. "But rude pottery, two bone arrow-heads, and eighteen skewers or pins of fragments of bone and horn, worked

roughly to a point, which may be appealed to confidently as a proof of the absence of metals, and extreme rudeness of the race by which they were used. They are, in fact, the *ne plus ultra* of rudeness in bone," and Mr. Laing says were found in the midden. No doubt the pottery is rude; perhaps, it was made in the county by amateur artists. If so, then let a similar class now, in Caithness or London, with none of the appliances of the potter, fabricate a bowl, and I question much if the specimen be any improvement on the rude pottery of the Keiss middens. Rare communication with the south by sea, and no roads, must three or four hundred years ago have made wheel-made pottery unattainable, and would drive the natives to make rude vessels for rough uses. The two bone arrow-heads and the eighteen skewers or pins of bone or horn, are, I believe, no proof of the absence of metals. I have not seen the so-called arrow-heads, but I think any one acquainted with the usages of the county would see they had been fabricated for quite another use than arrow-heads. The skewers or pins I recognise as admirably adapted for picking whelks, and the reason there are so many of them found in the heaps of shells is no other than the carelessness of the manse servants. The pins are rude, I know, but not more rude than pins of bone for picking whelks now would be were the modern clergy the makers. Please, Mr. Laing, try and make a skewer or pin of bone with a bad knife while at dinner, and excel them if you can. But there was found in the centre of the churchyard midden "a human tooth and a small portion of the jaw, which is important in connection with a similar discovery in another mound," says Mr. Laing. I shall notice this discovery when we look at

The Harbour Mound.—"This mound contained the greater number of relics," Mr. Laing says, "and faint traces of a low outer wall or rampart."—"A great mass of Cyclopean building." There was also "the appearance of a fire-place and chimney between two circular walls and outside a massive stone staircase of eleven steps;" also a shell midden of limpets. In the heap were found rude implements of stone, chipped flints, rude implements of bone and horn, and coarse hand-made pottery, which correspond entirely in character with these found in the churchyard middens and burial mound."—"A pair of rusted scissors, a combination of bronze and iron intended to form a small pair of shears such as might be used for clipping sheep."—"I found the fragment of the human lower jaw now produced. It is that of a child about six years of age, the permanent teeth being formed but not having yet displaced the milk teeth. The presumption is," says Mr. Laing, "that these aboriginal savages were occasionally cannibals." Now let us first look at the "rampart," the "Cyclopean building," the "fire-place," "chimney," "circular walls," and "eleven steps." In all honesty, in these I recognise the ruins of a common corn kiln of the county. The fire-place is the "*kilnsernie*," and Mr. Laing knows what that is; and the "eleven stone steps" are the ascent to the sole on which the grain or malt was laid. Only think of the absurdity of finding a fire-place and chimney in "a rampart," in "a Cyclopean building" of "the early stone period" when

man was contemporary with the mammoth and rhinoceros. Why, we have a building here of the twelfth or thirteenth century called "Oldwick," a building of pretensions far higher than anything Mr. Laing has exposed, and at the period of its erection chimneys were unknown in Caithness. Then look at the instruments found, no sign of antiquity surely. The rusted shears I recognise as a pair of weaver's shears. But then these "aboriginal savages were cannibals." Such a charge is surely a fitting climax to the inaccurate statements Mr. Laing has laid before the Anthropological Society of London. It appears to me, however far back our progenitors may be who collected this midden, a chipped child's jaw, *and the jaw of the child only*, being found there, may be logically accounted for without resorting to cannibalism for an explanation. In the midden there was found the remains of the boar (*Sus scrofa*) and dog (*Canis familiaris*), either of whom are very likely to have run off with the jaw from the churchyard not far off. But seeing the midden cannot be more than four hundred years old, any accounting for the jaws now by me, or any refutation of cannibalism so recklessly advanced, would be a waste of time.

The Moorland Mound.—Mr. Laing's moorland mound, his modest "pre-historic dwelling," that does not go back to the Abbeville period, when man was contemporary with the mammoth and rhinoceros, I found to be "the kirk stanes" of the district. "In the present day," says F. Max Müller, "the Highlanders are said to use the expression, 'Aam bheil thu'dol do'n clachan' (are you going to the stones)!' the meaning being, are you going to the church? On visiting the kirk stanes I saw a green space of considerable extent, beside a stream in a vast moor, an oasis in a desert, with several knolls and moss-covered stones peering through the sward. Its name gives us an inkling of its history. To me it seems to have been the abode of solitaries, monkish cells, places of penance. The relics Mr. Laing found here do not belie that supposition. "Some fragments of pottery, wheel made."—"A stone hammer, or oval beach stone."—"Two small wheels."—"Some smooth pebbles from the beach, which I take to be sling stones," says Mr. Laing. The oval beach stone called a hammer is perfectly gratuitous, and so are the sling stones. From all I have seen of Mr. Laing's stone weapons none of them could I recognise as owing anything to art; similar "weapons" may be gathered any day by the barrowful.

The Long Burial Mound "is the most important" and "most interesting" of Mr. Laing's "discoveries," and comes next to be considered. I found it to be the place of burial of castaway sailors, drowned shipwrecked mariners; such is the tradition, and such is the local belief. Take a map and observe the position of Keiss as it lies to the Pentland Firth, and you will see that Noss Head must often have been mistaken for Duncansbay Head, the entrance to the firth, by vessels bound for the west. Indeed, so frequent were these mistakes in my memory, before Noss Head light was erected, that seldom a year passed without a wreck at Keiss; and before the Skerry Lights*

* The Pentland Skerries were lighted on 1st October 1794.

were up, these mistakes must have been much more frequent. Keiss was generally the landfall of all such vessels. Thirty years ago I saw the shores of Keiss strewn with the bleached timbers of great ships stranded there, and I recollect seeing Dutch made pots, called negro pots, in use here that were taken off a Dutch vessel for America, wrecked at Keiss. A stigma yet attaches to a family here, whose grandfather, or great grandfather, pulled the rings off the fingers of a Dutch lady with his teeth as he was assisting to carry her up from the stranded ship at Keiss.

That drowned sailors were buried on the shore at Keiss, I am assured by William Cormack, an old inhabitant at the shore, and he pointed out to me the Dutchman's grave a few yards from his own house; the grave he tells me of a Dutch captain who was wrecked when his (Mr. Cormack's) father was seven years of age. Mr. Cormack's father died eighteen years ago, and was ninety-seven years of age when he died, so that this grave must have been made one hundred and eight years ago. I shall try and disinter this Dutchman and send the bones to London that you may decide in what these bones differ from those disinterred by Mr. Laing. I am anxious to uncover this grave, about the age of which there can be no question, that we may see the mode in which the Keiss folk interred drowned sailors one hundred and eight years ago. I am very sure when this grave is opened it will be found in every respect to resemble the generality of those opened by Mr. Laing, because seven or eight years ago, David Sutherland, contractor, when making a road to the shore, a little to the north of the harbour mound, came on a grave similar to those Mr. Laing opened, and in it found a number of coins, some of which I now produce, a grave that could not be more than two hundred years old.

We have no trees, or very few in Caithness; wood, then, must have been an expensive commodity in Keiss a hundred years ago, and must have been still more so a century earlier, hence the "cists" or stone enclosures made to contain Mr. Laing's "primitive people."

Keiss Bay, or Sinclair's Bay, from Ackergill Castle to Keiss Castle, is five miles round. A few years ago Sir George Dunbar cut a road through the sand-hills from Ackergill Castle westward, and in that cutting I saw a grave like those opened by Mr. Laing at Keiss, and at various levels in the sand-hills were human skeletons uncoffined. Sir George Dunbar's belief then, and now, and the common belief here is, that at very short intervals along shore, human skeletons may be found, the remains of wrecked sailors; but about Keiss was the great focus of the wrecks, and *there* must be the greatest number of graves.

The stone implements said to be found in the graves I believe to be no implements—not works of man's making. Such "implements" you may collect by the barrowful, if not by the cart-load, any day on the shores of Keiss; that is how I viewed the so-called "weapons" taken out of a grave at Keiss and shown to me. But if Mr. Laing has found stone implements in the Keiss graves, his finding them in graves two hundred years old should not be a matter of astonishment

to us. I see in *The Celt, the Roman, and the Saxon*, by Thos. Wright, London, 1852, page 72, he says, "according to the recital of William of Poitiers some of the Anglo-Saxons fought with weapons of stone at the battle of Hastings, and they are said to have been employed by the Scots as late as the wars of Wallace." If, then, stone weapons were used by the Southern Scots five hundred years ago, the knowledge of them must have continued here till a much later period. M. Pruner-Bey says, "The Celts of the British Islands have used stone weapons down to an epoch very nearly approaching our own. In Irish legends the 'leah-noile adh' (sling stone carried in the girdle) plays an important part in the poetry of the bards. The various terms for spear are also reducible to the root signifying stone." If Mr. Laing has found stone implements in the Keiss graves, then I am of opinion, with Sir Charles Nicholson, that the people of Keiss interred in the graves rude similitudes of the weapons worn by the wrecked sailors, and appropriated the real weapons.

Mr. Laing says, "he lighted on a people of the early stone period," of which the type of the skull was dolichocephalic. Now, I see, M. Pruner-Bey tells the Paris anthropologists that the brachycephali correspond with the stone period in the north, and that "there is in all questions relating to the races of mankind much that is certain, much that is probable, and much that is uncertain." Mr. Laing never sees a difficulty, speaks like one having authority, and arrives at his conclusions with startling precipitancy; and then the pitiable thing is, all his parade of learning is thrown away on drowned sailors, and female passengers wrecked at Keiss not three hundred years ago.

The variety in the skulls is inconsistent with Mr. Laing having found "graves and skeletons of an aboriginal race of North Britain, which is either itself of great antiquity or represents a race who had lived on, little changed from the earliest period." The skulls want the homogeneity, such a supposition would imply, some are of the "Negro type," some of the modern European. Mr. Higgins says "two differed very much from the rest, and might have belonged to any Englishman of the present period." Mr. Carter Blake says, "No. 1 skulls had been said to be of a degraded character, a female." Mr. Prideaux says of them, "what is certain about them is, that their type does not enter largely into the composition of the crania of the existing English peoples; but some of the Scotch, especially near Aberdeen, bear some resemblance to them." A skull and other bones from the same graves, were sent by your local secretary, Mr. Anderson, to Dr. Arthur Mitchell, Edinburgh, and that gentleman, writes Mr. Anderson, "In examining them I have been greatly assisted by W. Turner, Esq., who is probably the best craniologist we have in Scotland. The description which I append, is written by Mr. Turner, and will be read, I am sure, with interest."

"You will observe that the head is not regarded as of a low type. Indeed, I think it would be easier to get a worse head among the women of our own day, than it would be to find a better one, etc."

Mr. Turner says, "The bones consist of a skull, pelvis, and two thigh bones apparently belonging to the same skeleton, and are in an

excellent state of preservation. Their original owner was a woman about the middle period of life. The skull is well formed and belongs to that group which ethnologists distinguish by the term dolichocephalic or long-headed, so that it corresponds in its general dimensions to the crania of the present inhabitants of these islands, and of North Western Europe. The extreme length is 7·2 inches, the extreme breadth is 5·1 inches. The face is somewhat narrow in the region of the upper jaw, but possesses none of that projection forwards, or prognathism which is so characteristic a feature in the Australian or Negro races. In its horizontal circumference the skull measures 21·3 inches; its internal capacity equals 89 cubic inches. The latter measurement is especially interesting, because it shows that in the amount of space for the brain this cranium not only considerably exceeds in its capacity that of the skulls of women in modern savage races, but it is on a par with, or even somewhat in excess of, the average cranial capacity of the women of our island at the present day. From the manner in which the surfaces of the crowns of the teeth, more especially the molar series, are worn down, it is evident that the food in use at the time must have required considerable trituration during mastication.

"The pelvic bones are not quite symmetrical in form, and the hips are somewhat narrow. The ridges, or the bones for the attachment of the muscles, possess no great prominence, hence it may be concluded that the woman was not required to lead a life compelling any great amount of muscular exertion.

"The thigh bones were elegantly formed, their extreme length was seventeen inches. From the length of these bones some idea may be formed of the stature, which was probably not more than five feet four inches."

As to the mode of burial, Mr. H. Burnard Owen says, "From the position of the skeletons, being on their sides, I am inclined to believe that the date of interment must have been subsequent to the introduction of Christianity."

In the character here given of the skulls, the skeleton, and the mode of burial, Mr. Laing surely must be wrong in thinking he has "established" "that the burial mound with its kists and skeletons, is unquestionably of the early stone period," "and that the type of the race is very remote from that of any modern European race." Does it not rather go to establish the correctness of the popular opinion, that the graves are those of drowned sailors, and female passengers wrecked at Keiss not more than three hundred years ago? I believe, that on the shores of Sinclair's Bay there may be found representatives of every European maritime nation, and some Negroes, and the opinions quoted on the skulls found there favours that conclusion.

The Birkle Hills.—Mr. Laing did not examine these mounds with the care he bestowed on the others, and he justly remarks, "Further examinations would be necessary to disclose the structure of these mounds, as to which all that can be said with any certainty is, that they are probably of the same period as the burial mound and the lower strata of the other mounds." But, though he knew so little of

them, he says, "They may not have been regular dwellings, but rather places of worship or sacrifice, when the neighbouring tribes met to regale themselves with rude banquets."

I have visited the Birkle Hills, and the conclusion I have arrived at regarding them is, that they are natural hills, like the hillocks of blown sand amid which they stand. They differ from the other hillocks in being firmer, more consolidated, and covered with small stones from the beach. They have, too, at their base and on their sides, "kists," like those at the burial mound containing human bones, and they seem all to have had cairns of beach stones heaped over them. Were these hills "of the same class as the other conical mounds of Caithness, viz., consisting of concentric circular walls and cells or chambers in the interspaces between the walls," as Mr. Laing says they may be, how comes it that we have on these "ancient buildings," the graves of a people still older, "the aboriginal race of North Britain?" The thing is absurd. These mounds are hillocks of blown sand that have been consolidated by their having been the rendezvous of the country folks on occasions of wrecks, from their being nearest the scenes of such disasters. They are on the same raised beach with the graves and the harbour mound, therefore cannot be older than they. "The cyclopean building of unhewn stones from the beach" has been the place of shelter for the night-watchers, and the "ovens," or "fire-places," are the hearths where the crowds lighted their fires not only to warm themselves, but to cheer perhaps the embayed sailors during their dismal nights. Then look at the relics found: nails of iron, charcoal, stones split by heat, bones all charred, whorls, fragments of iron, etc., just what such gatherings of men and women as I have pointed at might be expected to leave.

Birkle Hills, whence came the name Birkle? It is not Scotch, it is not an English word; then whence came it? An ingenious friend suggests it may be the name or something like the name of a ship wrecked at Keiss, or perhaps a corruption of the Dutch word "*Berigten*" or *Brichten*, to advise, to inform, from the mounds having been the look-out post of a Dutch crew there cast ashore. From so many graves, and all of one type being on and around the mounds, we may not unreasonably infer that they are those of one crew, imply a large ship, and that the ship gave name to the hills.

Conclusion.—I respectfully submit in conclusion, that the views Mr. Laing has taken of the shell-mounds and graves at Keiss are at variance with the teachings of the geologist, the archæologist, and the anthropologist; and that there is a want of proof in his premises, and of logic in his deductions.

On Human Remains at Keiss. By GEORGE PETRIE.

Caithness, Wick, Sept. 9th, 1865.

My dear Dr. Hunt,—On Thursday I visited, along with Mr. Anderson and Mr. Cleghorn, the Kirk Stanes, two or three miles from Keiss, the Shell Mounds of Keiss, and the Birkle Hills. The "Kirk Stanes" is a large mound or ridge, about seventy-five paces long, in the middle of a moor, and is covered with stones set on end, assum-

ing at some places the appearance of stone circles. On the crown of the ridge there are three distinct circular-shaped mounds, the highest of which is at the east end, and contains the ruins of what I think undoubtedly has been a chambered tomb, about eleven feet long and seven to eight feet wide. On searching among the *débris* thrown out of the chamber, Mr. Anderson picked up a fragment of iron which, on examination, I recognised to be a nail with a large head and a rivet at the other end, which had formed part of a wooden shield. I have exactly similar fragments from one of the graves in Westray, where the shield when found preserved its form. We also found several shells of the "barnacle" in the corner of the chamber.

I think it is to be much regretted that Mr. Laing did not examine the shell mounds more thoroughly. I also visited the so-called Long mound. Perhaps it may be thought presumptuous in me to express a decided opinion in opposition to Mr. Laing, but having become familiar with the appearance of the sepulchral mounds of Orkney in *sandy* districts, and observing that the Keiss mound is of a similar character, I had little difficulty in forming an opinion on the subject. It is similar to mounds in Westray, and I believe is a natural formation. If dug into to a sufficient depth, I believe it would be found that the sand has accumulated around a nucleus of beach stones thrown up by the waves into a ridge along the shore, and that the graves have been made in the sand hill or ridge so formed. Various reasons might be given, did time permit, to corroborate this; but I can at present merely remark that I noticed that a section of the sand made by a road shows that the sand is stratified just as is seen in the Links of Westray and other places where the sand has been deposited by natural agents.

I next visited the Birkle Hills. That they are *artificial* is just as certain as that the so-called long mound is natural. Mr. Laing seems to have only penetrated a short way down through the top of the two mounds. On the top of the smaller one I picked up among the *débris* thrown up by Mr. Laing's excavation a small fragment of iron, like a spear point, and on the same spot two fragments of stone which I at once identified as portions of a stone vessel or cinerary urn, as I have seen many of the same kind of stone and form indicated by the fragments, and have still some in my possession. One of the fragments is a part of the lip or mouth of the urn. Mr. Anderson showed me last night the fragment with a hole in it, which Mr. Cleg-horn maintained had been made by the Pholas perforating it. Mr. Cleg-horn denied that it was artificially made, or that it formed part of an urn. The moment I saw it I recognised the usual form of hole which I have more than once observed in the bottoms of stone urns. I have in my possession an urn containing three similar holes in the bottom. On taking the fragment into my hand, I pointed out to Mr. Anderson and Mr. Shearer the marks of the tool distinctly visible on the stone, and these are still more distinct on the fragment I picked up. I also showed them that the fragment was the edge of the bottom of the urn, so that we have got a portion of the mouth and also of the bottom of a stone urn which has had one or more holes in it to let

the water run out. Dr. Mitchell had also given in to Mr. Cleghorn's opinion "that facts are stubborn things," but experience greatly aids in reading them aright.

I have been endeavouring to explain to Mr. Anderson and Mr. Shearer the various types of antiquities in Orkney, so that they may have less difficulty in examining the antiquities here, which I find generally resemble those in Orkney.

Can you not get the association to give me a moderately reasonable grant of money to explore thoroughly any of the more perfect of the large barrows still extant in Orkney, or to ascertain by excavations the exact form and nature of the surrounding defences of the Broch in Shapinsay, which Mr. Balfour opened? None has been thoroughly examined or exhausted. I would rather have a good specimen well done than several only partially.

I had nearly forgotten to remark that it appears to me that the finding of the iron and the fragments of an urn seem to point to a secondary interment, and as the urn is in pieces, and only portions found, probably it belonged to an older interment, and had been disturbed and broken when the interment to which the iron belongs was made. I have communicated the foregoing in case you think it worth to add it to your notice of the Caithness antiquities. I have arranged with Messrs. Anderson and Shearer to communicate additional information to them about the Orkney antiquities, to guide them in their own researches.

Hoping to hear from you on my arrival at Leith,

I remain, yours very truly,

Dr. James Hunt, F.S.A.

GEORGE PETRIE.

On Human Remains at Keiss. By JOS. ANDERSON, Esq., Loc. Sec. A.S.L.

As I have been asked to give my opinion regarding Mr. Laing's book and the Keiss remains, I shall do so as shortly as I can. I have already alluded to the matter in the *Journal*, but having now seen Mr. Laing's description and the drawings of the weapons, etc., I shall make a few observations regarding the several questions likely to be raised in connection with the discussion of the subject.

And first, on the general question, after having minutely examined a considerable number of the other ancient remains of the county, I find it impossible to resist the conclusion that the Keiss remains to a large extent are not capable of explanation by comparison or analogy with them. In saying this I refer specially to the "burial mound" so-called, with its contained graves, and relics. They are entirely, so far as is yet known, *sui generis*, and although it has been ascertained that similar graves, and a mound exactly analogous to the Birkle Hill have been found on the Ackergill side of the Bay of Keiss, the one does not explain the other. More extensive and rigid examination of the whole locality of Keiss is absolutely necessary before reliable conclusions can be deduced, either as to the age of these graves, and mounds with refuse heaps, or as to their true relation to the other antiquities of the county. The abounding and ingenious speculation with which Mr. Laing's book is filled I regard as quite

premature; what is wanted for the elucidation of our northern antiquities, at least so far as Caithness is concerned, is a systematic collection of well-ascertained facts. The field is one in which the ground has scarcely yet been broken, and it will be quite time enough to begin to spin elaborate theories when the field of investigation has been exhausted, in as far at least as the locality in question is concerned. When the last ascertainable facts have been hunted out and placed on record, there will at least be the excuse for theorising that there are no more facts to gather. Mr. Laing, as the President is aware from having visited the scene of his explorations, only partially excavated the mounds which he has described, and as he reasons greatly on negative evidence, *e.g.* the absence of metal, of flint weapons, and of sheep bones, etc., in coming to a conclusion as to the probable antiquity of the mounds themselves, this negative evidence could only be admissible in a case in which the whole mound had been thoroughly searched and completely excavated.

The "burial mound," so-called, I regard as the most puzzling and unsatisfactory of the whole, though Mr. Laing regards his excavations in it as the most important and interesting of all. I got four graves excavated, at the left of the section given in Mr. Laing's frontispiece, and found them in line with those previously excavated by him. In fact, Mr. Sang, who opened Mr. Laing's as well as those for me, got their position, in each of the four cases, successively by simply pacing five yards along from the centre of the one last opened. I saw these four opened. They differed in no way from those previously opened by Mr. Laing. Nothing was found in them but the skeleton. Mr. Laing says he thinks the bodies have been laid on the natural surface of the ground and the mound heaped over them. The mound, I believe, is a natural one of blown sand, and so far from the bodies having been laid on the surface of the ground, there is no ground at all beneath. We dug down beneath the bottoms of some of the graves, through clean sand, to the old beach on which the sand ridge rests, I subsequently got Mr. Sang to open a grave next to Mr. Laing's No. 7, or "chief's grave" so-called. This one I did not see opened, as I was not able to go to Keiss till the day after it had been done. Mr. Sang sent me the contents, which Mr. Laing has figured as those of "Kist No. 9." They are undoubtedly manufactured by chipping and grinding. That they were found in the grave I did not doubt, as Mr. Sang had no motive whatever for deceiving me. He volunteered to gratify my curiosity about the graves, and if I had employed him, for the sake of a large gratuity, to find weapons, I had but little chance against Mr. Laing, for whom he had previously done so much. What he did for me was done purely as a labour of love, though I was previously unacquainted with him, and because, as he said, both he and I wanted to see a little more of the graves than we had seen. But I would not ask any one to believe that "weapons" or articles really manufactured by human hands have been found in the Keiss graves solely on my confidence in Mr. Sang's integrity. Luckily there is the testimony of two gentlemen no way connected either with Mr. Laing's excavations or with mine. Some days after I got these weapons, Mr.

John Gill, of Blingery, and Mr. Mitchell, superintendent of police, were at Keiss, and Mr. Gill wishing to get some of the Keiss relics for a scientific friend, prevailed on Mr. Sang to open another grave, one to the left of Mr. Laing's No. 7. Both Mr. Gill and Mr. Mitchell were present when it was opened, and saw the three weapons taken out of it. They were not all found at once, and some considerable search was made before they were got among the sand in the bottom of the grave. These weapons, which are better manufactured than any either of mine or of Mr. Laing's, are now, with the skull, in the possession of Professor Ogston, Aberdeen University. Whether any of the articles obtained by Mr. Laing be really weapons made by human hands or not, there can thus be no manner of doubt, I think, that there were weapons taken from at least one grave, as these two gentlemen testify, even if we assume that Mr. Laing was self-deceived, and that Mr. Sang deceived me.

You will perhaps be inclined to ask how then do I account for only two or three of the graves in the so-called "long barrow" containing weapons, while all the rest contained none, or if they did, none were found. I confess that is to me a puzzle; but I will tell you how Mr. Laing may get over the difficulty. I observe that of the *seven* skeletons described in his book, *five* are those of women, and with them of course you would not expect weapons to be buried. Believing as I must that weapons, or *simulacra*, or whatever you may choose to call them, have been found, I am content with the fact; though I cannot explain the anomaly either of the character of the weapons, or their partial distribution among the graves. There is one thing, however, which I think is suggestive. When Dr. Hunt visited Keiss we disproved the "five yards" arrangement of the graves in what Mr. Laing calls the "centre" of the mound, though that seems to me to be its northern extremity. We ran a trench ten or twelve yards along from the "chief's grave" in a northern direction (to the right in the section in the book), and though we should have found two graves in that space on the five yards hypothesis, we found none. Again, the distance between the four graves opened there (those by Mr. Laing and the two for me and Mr. Gill) is not five yards, but they lie at irregular intervals. I infer from this that the five yards arrangement only holds good at the southern extremity of the ridge (left in section), where the Keiss folks say shipwrecked people were buried long ago. It is true, they call the "chief" himself a "shipwrecked mariner;" but though I could not claim as indubitably ancient, full length graves that have nothing in them to give a clue to their age, I would unhesitatingly say that those buried with chipped quartz implements and stone spear-heads, were no drowned sailors or cast away passengers. Some considerable time ago a cairn bearing all the appearance of the ancient cairns in the hills of Caithness, was cut through in digging a deep ditch at the northern extremity of the mound, a hundred yards or so further to the right than Mr. Laing's section (in the book) extends. It contained a cist and skeleton. I have several times examined it, and believe it to be an ancient cairn. The circular wall round Mr. Laing's chief's grave is just about the diameter

of the circular wall in a cairn with a central cist at Yarhouse, close beside two standing stones. It is not unusual for three such cairns to be contiguous and in a line, and if it was proved that the "chief's grave," the one whose weapons I got, and the one opened by Mr. Gill, were really in cairns, there would be nothing remarkable in finding weapons in them. However, I have never yet seen a cist in a cairn whose sides were formed of several stones. They have invariably, whether long cists or short cists, been formed of single stones. The grave on the Birkle Hill, from which the other weapons sent to me were got, seems to have been made of single slabs. Of course the construction of the cists would vary with circumstances whether the interments were ancient or recent. The theory of shipwrecked sailors may fit well enough with the graves at the one end of the mound, where they lie in line at regular intervals, and in one case one on the top of the other; but those with the weapons require a more congruous explanation.

The "churchyard mound" of Mr. Laing's book I regard as the refuse heap of an ancient borg, the structure of which has been mostly quarried away. The idea of part of the building having been founded on the top of the refuse heap is, as far as I could ever see, entirely erroneous. I saw the section Mr. Laing refers to, and examined it minutely two years before he came to Keiss, when it was somewhat different from what it was when he explored it, and I saw it several times while his excavations were going on, and I think the appearance was solely due to the spread of the rubbish from the quarried out old building.

The "harbour mound" I also believed to be an old borg long before I saw it opened by Mr. Laing, and having seen it opened I have seen no reason to change my opinion, but everything to confirm it, although I do not believe that any part of the structure laid open by Mr. Laing is that of the original building. The thinness of the walls and the fireplace show that it has been adapted and used for some recent purpose. The division of the refuse heap into primary, secondary, and tertiary strata I consider fanciful. Being borgs (if they really are so) I cannot see why Mr. Laing should assign such an extremely high antiquity to them as he seems to do, nor can I see how all the borgs of Caithness and Orkney must follow the two at Keiss, which are even yet but very insufficiently explored. Mr. Laing assigns all our borgs, on the negative evidence of those two at Keiss, to the early stone period, and to the earliest stage of that period—to any time between the quaternary period and twenty centuries before the Christian era. Yet I do not know another borg explored in Caithness in which bronze has *not* been found. Again, the sheep was found in Kettleburn by Mr. Rhind, and I have found sheep and lambs (as determined by Professor Busk from a collection of bones partly from Old Stirkoke and partly from Keiss), though Mr. Laing founds an argument for the high antiquity of the Keiss borgs on the absence of the sheep.

It is no objection to the harbour mound being a borg, that it is only a few feet of vertical elevation above tidemark. In the case of the

borg of Clickamin at Lerwick, its foundations are at the high water mark almost, if not below it. I do not go into the question of the age of these structures, further than to say that I would sooner place them, and the whole of the Keiss remains, on this side of the Christian era than twenty centuries before it—that is if I were compelled to assign a probable period for them.

In regard to the "moorland mound," for which, however, Mr. Laing does not claim an antiquity so very remote, it is one of an irregular cluster of mounds, some round, some oval, and others presenting an external appearance as if they were the ruins of rectangular buildings. They are scattered over a green oasis on the elbow of a small stream in the midst of a vast moorland waste. Their local name is the Kirk Stanes, and it is supposed that a Culdee chapel once stood there. There is another place, also on the elbow of a small stream in the middle of the moss of Kilmster, which goes by the name of the Kirk o' Moss, and if a person were led blindfold to either, so similar are the situations and the appearance of the green oases dotted irregularly with small mounds and stones on edge standing out of the turf, that it would puzzle him to say whether he was at the 'Kirk Stanes' of Keiss or the 'Kirk o' Moss' of Kilmster. In the moss of Camster there is a similar place, which so far as I can ascertain has no tradition of a kirk about it; but Mr. Shearer, who asked about its history, was informed by an old man that it was an old shieling, and that he remembered it as the head-quarters of the cattle and their attendants from the farms around the extensive moor when they were quartered out in summer-time. Whatever Mr. Laing's moorland mound may have been to begin with, I have little doubt it was a shieling in its latter days. When I visited it last summer in company with Mr. Cleghorn and Mr. Petrie, we found in the rubbish of Mr. Laing's excavations an iron rivet, which I send with the other articles forwarded.

My conclusions, from all the facts ascertained (though I do not think we yet know all the facts necessary to draw definite conclusions), would be:—

- I. That the burial mound, so called, contains two sets of interments, one presumably older than the other, but concerning either of which we have no reliable data for determining their age, though the one may with considerable probability be conjectured to be recent, and the other not of any very great antiquity.

- II. That the "shell mounds," so called, being refuse heaps of borges or Picts' houses, cannot be referred to what has been called the "early stage of the stone period;" that they present no general analogy with the *kjökken-møddings* of Denmark, and in all probability belong to the transition period when the prehistoric and the earliest historic records of the North of Scotland merge into and throw light upon each other.

- III. That the "Birkle hills" are still undetermined as to their character and contents, and

- IV. That the "moorland mound" is most likely the site of an early Culdee settlement latterly used by the country people as a shieling.

On Human Remains at Keiss. By ROBERT I. SHEARER, Esq.

I HAVE now seen Mr. Laing's book on the prehistoric remains of Caithness, and cannot help offering a few remarks on it. But before doing so, allow me to state that I am well acquainted with all the prehistoric remains in this side of the country, whether explored for scientific purposes or otherwise, and have seen all the excavations made and been personally connected with them, except in one single case—Kettleburn. When our late lamented countryman, Mr. Rhind, commenced opening the cairns on the Yarrow hills, I wrought with him, and we opened four large cairns and several smaller ones. Since then I have opened several kists; and last year, in company with Mr. Anderson, we opened four large cairns and three or four kists. Mr. Rhind, in all his labours among these cairns, only found one skull in such a state of preservation as allowed it to be restored partially. In our own excavations last year, we were not in this respect more successful, as we only found about the half of one skull in such a state of preservation as admitted of its being sent to London. Now I wish it to be understood that we found many skulls, but so decayed as to render them useless. In Mr. Rhind's excavations as many as five in one side of one chamber, but all as soft as loose saw-dust. At the time of Mr. Laing's discoveries, what struck me as most remarkable was the state of preservation in which almost all the skulls were.

In the whole of my excavations I have seen perhaps five times as many skulls as Mr. Laing has found altogether, and of all that number only two can, with great difficulty, be partially restored. And I now leave it for others to judge if the low wet sands of Keiss were likely to keep skulls in a better state of preservation than the dry elevated hill sides of Yarrow.

I confess I never saw the weapons found by Mr. Laing, but, in looking over his plates, almost any one who has ever seen real weapons from the kists and cairns of Caithness cannot fail without reference to the letter-press to declare that all those from the "Burial Mound," found by Mr. Laing, are very unlike weapons at all, whereas those from the other places mentioned by him as certainly point themselves out as having some similarity to ancient weapons, though it is very remarkable that with flint lying about in such abundance no flint weapon has been found. We will follow Mr. Laing in his own mode of describing the different places, and begin with 1. The "Birkle Hills," which have not yet been explored, and it would have been wise in Mr. Laing to have left them unmentioned, as the only excavations he made were on the top, and showed that the place (whatever its internal structure) was used to light fires on, perhaps as a beacon. A kist at the base of the smaller hill was opened by Mr. Sang for Mr. Anderson, after Mr. Laing left, and yielded weapons very like those figured in Plate II, Nos. 4 and 5, but which Mr. Laing says came from kist No. 9.

In No. II. "Burial Mound" which, to all appearance, is natural, both externally and even after digging into it, nothing is seen to change

the first impression. On going to this mound in company with Dr. Hunt and Mr. Anderson, after Mr. Laing had left, we re-opened kist No. 1 of Mr. Laing's plan, and found some portions of a skeleton. Dr. Hunt, I have no doubt, will still remember having with his own hands dug up among other portions of the skeleton a pelvis, which has since been sent to London. It seems that if Mr. Laing's numbers attached to the plates of the crania and pelvises in Professor Huxley's part of the book have any reference to his numbers on the plan of kists of the "Burial Mound," then the grave (No. 1) contained a human skeleton with two distinct and separate pelvises. Now, after a knowledge of this fact, we surely cannot wonder that the weapons of the Keiss cannibals were so very rude and of such extraordinary workmanship. Seeing they had double pelvises, there is nothing to hinder the belief that they had also double lower jaws; and even now-a-days I do not believe it would be considered cannibalism of a very bad kind if a Caithness *savage* extracted not only the marrow from one of these superfluous jaws, but the jaw itself.

Nor can we wonder that Professor Huxley says in speaking of this skeleton, "Bones marked No. 1 constitute the greater part of one skeleton, which is in many respects the most remarkable of all those found at Keiss." I should think so if he had only seen the whole. The Professor also adds: "There can be no doubt from the characters of the pelvis, and from other parts of this skeleton, that it appertains to a female." It is said that wonders may be expected every day. Now if it should so happen that the pelvis found by Dr. Hunt should turn out to "appertain" to a male, this curious hermaphrodite surely deserved a book entirely to itself; and nothing is more wonderful among all these wonders than that Mr. Laing should miss such a chance, as it certainly would have created a far greater sensation than his present work has done.

Further, in regard to the "Burial Mound," Mr. Laing says that "kists were found, in every instance, with wonderful regularity, at about fifteen feet apart." I have no doubt Dr. Hunt can certify that we proved the fallacy of this. Again, Mr. Laing says, "The skeletons lay on a layer of clean sand, about six inches thick, laid on the natural soil." Now we thoroughly explored kist No. 1, which had only been partially opened before, as was proved by a mass of sand and some of the covering stones of the kist, which had never been formerly removed; and after Dr. Hunt had taken out the bones, I dug about two feet under the bottom of the side stones, and still did not reach the "natural soil." Now in this case the depth of sand under the skeleton was much more than six inches. For all Mr. Laing's endeavours to enlighten us on this subject, we have reason to be truly thankful, and for none more than the following, where he tells us that "the other trench hit upon the *corner* of a circular wall"—we, in Caithness, only being a remove or two from the savages he describes, never knew before that a circle had a corner. But not having seen it, of course, it may be possible in such a building as a "chief's kist," or to savages who cannot be supposed to have known much of mathematics.

No. III. "Churchyard mound." This is as Mr. Laing describes it, a large shell mound, beside what appears to be an ancient "green cairn," but as no excavations have yet been made in the cairn itself, it would be premature to say much about it. Mr. Laing only excavated a small portion of the shell heap, but the cairn is still untouched. Before it can be said with any justice that the foundations of the cairn are super-imposed on the shell mound, the whole must be explored; and it is my opinion that, though, perhaps, some slight temporary building, such as a modern house, may have been built on the shell mound, still the walls of the original cairn will be found on the same level, if not lower than that of the shell mound. I am astonished that Mr. Laing complains of the scarcity of fish-bones in this mound, as the very first time I went there, some years ago, as well as on every occasion since, I found entire skeletons of fish of large size, though so extremely fragile that they could not be removed, and these did not at the time or since appear to me to be the refuse of food cast away by savages, as we can hardly suppose savages to be so very careful of the skeleton of a fish as to clean off all the food without displacing a single bone, and then to lay it carefully down in a midden. But it may be well to know that up till within the last ten or twelve years the fishermen in the country cast away many fish as unfit for food, which are now eaten. A curious superstition did not allow them to cast the fish away as soon as they reach the boat's side, as it was thought unlucky to cast back into the sea anything it had yielded, however useless, and under this impression these fishes were carried home, and cast into the refuse heap; and this accounted to me at the time for the entire skeletons of fish which I saw. The fish must have been placed entire in the heap, else the bones of the head and ribs would not have remained in their relative places, as they were found to be. Now, I cannot be made to believe that savages who, pressed with hunger, would break a child's jaw-bone for the sake of the small quantity of marrow it yielded, would be at all likely to throw away fish (however coarse) that must have weighed from twenty to thirty pounds or more, without at least trying what its jaw-bones contained.

The pottery found in this heap (if it really is pottery) is by far the coarsest I ever saw in Caithness; that from the cairns on the Yarrows hills is fine compared with it; the specimens are so cracked, ill-baked, and so uneven on the surfaces. It also shows little trace of curvature, that I have always doubted if any portion of it had ever formed part of a vessel.

IV. "Harbour Mound." This mound I saw after being excavated and before being filled in. All that I can say about it is that, except in the cyclopean form of its walls, it had certainly nothing at all that would show it to be ancient; on the contrary, the style of the masonry, when compared with any others through the country, unmistakeably of great antiquity, prove it to be quite modern. If the men that built the "Harbour Mound" at Keiss were contemporary with those of the earliest stone periods, as Mr. Laing believes, those who built the other cairns in the country must have been older still.

I confess we know very little yet of the structure of many of the "green cairns" of Caithness; but all those that have been explored for scientific purposes or otherwise, and in which the walls are shown, possess a character of antiquity impossible to describe, but which any tyro in the matter could at once see when compared with this "Harbour Mound" at Keiss. I do not profess to know for what purpose this mound may have been built, but that the whole of it is recent when compared with any of the mounds in the interior of the country, every stone in the walls declares. And when we find that these really ancient cairns present us with very finely finished flint weapons and perforated stone hammers of a very high finish, indeed, we cannot believe that it is to a high antiquity that the weapons described by Mr. Laing owe their rudeness. I have seen, not long ago, exact counterparts of the bone pin, fig. 53, page 35, made and worn by a race of people locally known as "Cairds"—a nomadic people, perhaps gipsies, and whose employment was to manufacture implements of horn and bone for the people of the country. The cheapness of metal spoons and pins (the manufacture of which was from bone the chief employment of the "Cairds") has for some years destroyed their trade, and all but rooted out the name.

v. The "Moorland Mound." I am really astonished that Mr. Laing did not, before rushing into print, take the advice of some person in this country, who might have hindered him publishing an account of a "Sheiling" bothy, not yet out of use above forty or fifty years, as a Moorland mound, of prehistoric date. To have remains of this sort mentioned in the same book with those of Abbeville! No wonder Mr. Laing admits that this mound is of a different character from the others, as he might, I have no doubt, have found some men at present living about Keiss who helped to build it. I can at least find men in Caithness who built "Sheiling bothies" exactly similar to Mr. Laing's "Moorland mound." "The walls being of large flag stones set on edge," are the same as are to be seen to this day in many modern buildings similarly situated, where the largest surface that any stone can be got to present is of the utmost importance in a turf building. The shells found on the floor are just such as the young women who attended their cattle in these moorlands were sure to go to the shore to gather, after they had finished their day's work, or were waiting for the return of their cows. To the present day young women, and men too, go to the shore a distance of three or four miles to gather such molluscs. The bones found were only such as were sure to be sent from home for the regular food of these girls while living in a sort of banishment in the hills during the summer. The "bench or bed" along the walls is simply the place on which the milk was set in dishes, a portion of which dishes Mr. Laing found "having a coarse blue glaze," and which he mistook for a piece of prehistoric pottery! The two large stones opposite the door in the further end of the building are the fireplace, and these stones, with the assistance of one or two more, though not so permanently fixed, were used for supporting a large pot, in which they boiled their milk for making cheese, and also saved them the trouble of carrying up to

the hills a large iron hook and chain (which very likely could be very ill-spared at home), on which pots in country houses are usually hung. The stones projecting on each side of the doorway are the foundations of a turf erection merely for shelter. It reached to the height of the walls, and was covered on the top; and in a day's walk in the interior of the country, I will now point out half a score of similar erections.

Why does Mr. Laing ignore the existence of coins found at Keiss (and of which he was aware before he left the country) under circumstances exactly similar to his own findings, though not in any of the mounds he describes? These coins found in a kist at Keiss are now in the possession of Dr. Hunt, and will speak for themselves. Mr. Laing says, under the chapter headed "Antiquity," "In using this term I do not mean to prejudice the question of absolute antiquity, for it may well be that an aboriginal tribe of savages have lingered on, little changed, in a remote corner of Britain." This "remote corner," I suppose, is Caithness, and I will much sooner admit that they still linger there, and certainly on better grounds, than I can admit the antiquity of many, if not all the weapons found by Mr. Laing.

Again, at page 41, Mr. Laing says, "These latter people were Pagans, for they burned their dead in the latter barrows, and in the earlier ones buried them in a contracted posture, etc." Now, I have only to say that this is exactly the reverse of my own experience in all the really ancient cairns that I have explored in this county.

Mr. Laing again seems to think that because there is no mark of a cross about the graves he found, they could not but belong to some period before Christianity was introduced. Now what would Mr. Laing think if a Caithness man told him that the cross is no true emblem of Christianity, but has been used by nations who never heard of Christianity?

Mr. Laing admits that the Keiss savages knew the value of flint, but that the flint pebbles were too small for use. Now I should like to know where the other savages of the county whether of an earlier or later date than those of Keiss got the flints that they fashioned into weapons so well fitted to their purpose. Because Mr. Laing himself actually found no real prehistoric weapons of stone, he, in one place, remarks that "the invention of the barb to the arrow is one hardly likely to be lost." Nor is this the case, for the oldest cairns and kists in the county that have yet been explored show that they knew the use of the barb to the arrow.

At page 61, Mr. Laing says, "to realise the position of primæval man in Caithness we must recollect that he had abundance of stone, but little wood." Now I know not on what fact Mr. Laing grounds this statement; but this I know, that in every cairn yet opened, wood can be proved to have been the principal fuel. And we also know that there is hardly a peat bog in the county in which an ancient forest cannot be shown to have existed.

The last notice I will take of Mr. Laing's book is, of what he considers a most interesting discovery, at page 50; he says, "The most interesting fact is the discovery of the '*Alca impennis*,' which is now extinct in Europe." Now why should this bird help in any way to

fix the high antiquity that Mr. Laing claims, when it is known to have been abundant in these northern counties till very recently? I will quote a few lines from Sir Wm. Jardine's work on British birds in support of this statement: "Very few specimens have been obtained or seen; that in the British Museum, and long unique as a British specimen, was procured for Mr. Bullock near Papa Westray. Some one or two specimens have been seen. One obtained by Mr. Stevenson off St. Kilda, which afterwards, we believe, escaped; two are recorded as picked up in England, but evidently under peculiar circumstances; and one is mentioned by Mr. Thompson to have been taken in 1834, off the coast of Waterford in Ireland. In the old account of a voyage to St. Kilda in 1697" (not far from the same date as the Keiss coins), by "M. Martin, gentleman," we have this account. "The sea fowls are first the gair-fowl, being the stateliest as well as the largest of all the fowls here, and above the size of a Solan goose, of a black colour, red about the eyes, large white spot under each eye, a long broad bill, stands stately, his whole body erected, his wings short, he flyeth not at all; he lays his egg upon the bare rock, which, if taken away, he lays no more for that year. He is palmipes or web-footed, etc." It would seem from this that this fine bird was by no means scarce at the very time that the Keiss savages were burying their savage friends in the Keiss sands with coins of William the Third in their graves.

The bones of the great auk no more prove the antiquity of these mounds than do the bones of the red deer or any other animal still existing, but getting comparatively very scarce.

The fact seems to be that at Keiss some real weapons of antiquity were found, or at least very good imitations; but the whole thing is now so mixed up together as to render any of the things in a scientific inquiry utterly useless.

As it is very possible that many persons in England may not know what is meant by a Sheiling Bothy, I will, with the view of throwing a little more light on the importance of Mr. Laing's discoveries, endeavour to describe them, and what was their use. Before the introduction of sheep, if the grass of the moorlands and hills was to be utilised at all, it could only be by feeding black cattle. At that time there were large tracts of moorland without a dwelling-house on them. And to the nearest of these that offered good pasturage, the cows belonging to the several surrounding tenants were driven in summer. On some spot, near a stream, and frequently beside an ancient cairn from which stones could easily be obtained for the foundations of the structure, was built the bothy of the sheiling. They are all as nearly as possible like that figured by Mr. Laing, at his "Moorland Mound". In some cases these huts or bothies had a "but and a ben", or was, in other words, divided into two apartments. These huts were the dwelling-place of a young woman from each farm-house, where they lived to the number of three or four or more, according to the number of farmers who had cows at the sheilings. At these bothies the cows were milked and the calves fed, a girl milking a cow at one side and the calf sucking at the other. And it was necessary before the cow would give all her milk that the girl should change sides with

it now and again. The cows being milked, the milk was set inside generally in wooden dishes, and afterwards made into butter and cheese. After the cows had remained sufficiently long at the first sheiling to make the pasture bare, they were moved on to the next, and the "yeild" or young cattle took their place on the first sheiling. And in this way they kept moving on from sheiling to sheiling till, by the time the corn crop had been secured, they had reached the point at which they started, having made a circuit of the whole moors.

But, in digging out this "Moorland Mound", had Mr. Laing made a thorough search of the whole place, I have no great doubt he might have found some real weapons, as almost all the "sheiling bothies" I know are built on, or alongside, an ancient cairn. The facility with which stones could be got, and smooth rich pasture that surrounded these cairns were the chief inducements that led to the selection of such spots for the erection of the sheiling bothies. Plenty of water was another inducement; and though I have never seen Mr. Laing's "Moorland Mound", if it is not built on a small bend of a "burn" or moorland stream, there is certainly a good well near it.

Many Caithness men are, I believe, prejudiced against Mr. Laing's book, for trying to attach to their progenitors the stigma of cannibalism. Now, I hope Mr. Laing will believe me, when I say that, so far as I am concerned, I am quite willing to assist Mr. Laing or any other gentleman who may wish to make further inquiry into the matter, and will do all in my power to prove that cannibalism existed as late as he pleases, if he only will produce the proofs. If it could be proved that our forefathers were cannibals, I am so far from thinking it any degradation, that I would feel proud to establish Mr. Laing's theories, as a proof of the progressive development of our countrymen who now, many of them, fill important situations in many parts of the world.

I may just add that a good deal of discussion has taken place here regarding the meaning of the term "Birkle Hills". "Birkle" is a term in every-day use here, and is a corruption of brittle, and may have reference to the brittle state of the half-burned stones that nearly cover these hills.

The PRESIDENT then resigned the chair to Dr. Charnock while he read the following paper :—

On the Keiss Graves. By JAMES HUNT, Ph.D., F.S.A., Pres.A.S.L.

As my name has been mentioned in connection with Mr. Laing's recent excavations in Caithness, I feel it advisable to lay before the Society a brief statement of the part I have taken in this matter.

On passing through Wick on my way to the Zetland Islands, I called on our Local Secretary, Mr. Joseph Anderson, who was engaged in making some explorations on behalf of the Society, and I was by him introduced to Mr. John Cleghorn, who wished to speak to me respecting what he believed to be Mr. Laing's erroneous conclusions. Mr. Cleghorn asserted that he could prove the human remains sent to

London to be those of shipwrecked mariners. I then assured Mr. Cleghorn, that if he would submit his views, with the facts on which they were based, to our Society, we should be ready to give him the same attention we had done to Mr. Laing, who so kindly introduced the subject to our notice.

I then proceeded on my journey, but the next mail brought me an intimation from Mr. Anderson, that there was a great wish amongst some of the people of Caithness that I should personally examine these so-called prehistoric remains on my return journey. I was further informed that these wishes had been made known to the proprietor of Keiss Castle, Major M'Cleay, and he had expressed his approval and given his consent. Much discussion and some amount of annoyance had however been caused by the promulgation of the theory respecting the cannibalism of the former inhabitants of Caithness; Major M'Cleay, therefore, expressed a hope that I should be able to carry out the object in view by merely opening one of the graves in the burial mound. I hesitated for some time before I accepted this proposal, feeling that the discovery of the Keiss graves belonged to Mr. Laing, I was unwilling to do anything which would appear at all disrespectful to that gentleman. On consideration, however, I felt that Mr. Laing, in his paper to us, had made out such a good case, that further investigations would only confirm his conclusions, and I consented to devote a day to an inspection of some of Mr. Laing's work.

After visiting the antiquities near Thurso, and especially those at Dunnet, I visited in company with Messrs. Anderson and Shearer a large number of cairns which had been opened in the interior of the county. I had the advantage of seeing others in the course of exploration, and others which still remain for examination. Having thus gained a general knowledge of the ordinary kind of antiquities in Caithness, I went, in company with Messrs. Anderson and Shearer, to examine the Keiss graves and other objects of interest described by Mr. Laing.

After a short inspection of the churchyard mound, I proceeded to what Mr. Laing has described as the burial mound, where, through the kindness of Mr. Mackenzie, the farm steward of the Keiss Castle estate, men were waiting ready to do any digging required.

Mr. Laing in his paper to us stated that the shape of this so-called burial mound "is so far obliterated that it is not easy to assign its precise breadth and height, and unless to an antiquarian eye, sharpened by the knowledge that kists had been found, the existence of a mound at all would escape notice." I can so far verify this statement as to affirm that I made inquiries for the "burial mound," and I heard with some amazement that I was standing on it. I inquired where the mound began at one end and terminated on the other, and I was told that there were clear traces of it for about half a mile. I was at once sceptical as to the artificial formation of this so-called burial mound, and said that I should have taken it for the remains of natural beach. My companions, however, were both positive as to the artificial character of the mound for at least three hundred yards,

and they said I could at once proceed to satisfy myself on this point. Mr. Laing informed us in his paper, that "kists were found in *every* instance with wonderful regularity at about fifteen feet apart in the central line of the mound." Mr. Anderson, on the authority of Mr. Sang (Major M'Cleay's late gardener), had also given his adhesion to this theory, and assured me that I could at once come on a kist if I allowed the men to dig at a distance of fifteen feet from either of the graves opened. Mr. Laing had computed this mound to contain from sixty to seventy graves on this theory, and as many as two hundred "if it extended, as there is reason to believe, for half a mile."

As only nine or ten of these skeletons had been dug up, I anticipated no difficulty in finding at least one to bring back for our Museum, I therefore measured off the distance, and the men set to work with the following result. On digging up the top layer of green turf there was a quantity of clean white sand about two feet in thickness; we then came to some beach pebbles, and I was told these were the stones covering a kist, and that all the others opened were just of this character. It still appeared to me that these stones had been deposited by natural agency nor could I detect any signs of artificial agency in their position: I was however rebuked for my doubts, and I was told that in a few minutes my scepticism should be removed. The stones were all thrown carefully out, and every precaution taken in removing them; but when this was done, we did not come to a kist, but to another layer of sand. Down the men dug through this sand, but still no kist. Occasionally our hopes revived on coming to another layer of stones, but only to be again disappointed. Having thus dug far below the position in which any of the so-called kists had been found, I decided that it would be advisable to cut a trench along the central line so that we might come on the kists. The fifteen feet apart theory, therefore, had thus proved to be erroneous—at least in one case, and further digging showed that it was erroneous in more. In cutting the trench I called my companions' attention to the fact that the layer of stones which they assured me was the covering of the kist continued all along the mound with wonderful regularity, and the section I thus laid open showed not the slightest trace of artificial formation, but ample indication of the action of water and wind in the rolled beds of beach stones and white sand. The trench after a time extended such a length that I ought to have met with at least two kists, but I found not a trace of any.

Greatly disappointed at such an unexpected result, I determined to at least examine the structure of some of the "kists" opened by Mr. Laing, and proceeded to open kist No. 1, out of which Mr. Laing had taken the skull, pelvis, and the greater part of the skeleton. It was from this kist the supposed female skull was taken of which Mr. Laing remarked in "No. 1, the low attributes of the type are carried to such an extent as to give it a decidedly Negro aspect, and make it in the opinion of some high scientific authorities who have examined it, the worst European skull they have ever seen with the exception of that of the Neanderthal."—*Journal A. S. L.*, v. 3, p. xxxiv.

I found the kist composed of beach stones resting on end in fine white sand and covered with other beach stones. There was no bottom to this kist or to any of the others opened. There is, however, nothing very peculiar about these cairns, for similar ones in nearly every respect are found in other parts of the coast of Scotland. On this subject there recently appeared an account of similar kists being found at Stonehaven in Kincardineshire. This account* says:—

“Now and again when any repair of the streets in Stonehaven has been made, ancient stone coffins have been found in different localities; principally, however, above the Cross, in the Old Town; and this week they have been got almost at the surface of the street. In one case the hair were adhering to the skull of the coffin's occupant; in another the teeth were entire, and quite pure, and as white as chalk; the spine was quite whole, and the ribs adhering to it, and quite fresh. When these bodies had been buried the corpse must have been either cut or doubled up, for by the appearance of the bones they had belonged to tall individuals, and the coffins or cists, which were composed of slabs of slate of ten to fifteen inches long, set on edge, were only about four feet four inches in length; and, strange to say, there were no bottoms. Believing that the villagers of the fishing town of Cowie have a Danish origin, we can suppose that these are relics of some ancient Danes, and have lain in their quiet resting-place for at least 800 years.”

The contents of the kist however were more surprising to me than its formation, for to my surprise I took out the pelvis, femur, humerus, and vertebra now on the table. I inquired if this kist had been touched since Mr. Laing's diggings, but was assured that it had not. Mr. Laing says in his paper, “I obtained the entire skeleton of No. 1.” How this confusion can have arisen it is not my province to decide.

Having thus sufficient evidence that nature had played a chief part in the formation of this burial mound, there still remained to be explained the existence, with these skeletons, of rude stone weapons. These weapons had been found not only by Mr. Laing but especially by Mr. Anderson. Immediately, therefore, on reaching London, I made, in company with Mr. Laing and our Curator a complete examination of all the weapons found in the burial mound. Mr. Laing very frankly admitted that in not one of these evidences was there any proof of human workmanship, and that he should never have taken them to be stone implements had he not found them with the skeletons. Mr. Laing has since well remarked,† “No drawings can give an adequate idea of their extreme rudeness;” and that “the stone weapons are all of the native sandstone or common beach stones of the district. They are for the most part rounded or fractured by nature, or by a single blow, with the least possible adaptation by rough chipping. The hammers or celts are almost all natural stones from the beach.”

Although Mr. Laing had “no hesitation in assigning the burial mound and kists to the early stone period,” I came to an entirely

* From “Aberdeen Free Press”.

† “Prehistoric Antiquities of Caithness”, p. 40.

different conclusion. The mere accidental fact that such stones were found with the skeletons I regard as of little consequence, considering that such stones as those exhibited by Mr. Laing from the burial mound are quite common on the beach.

But a more serious difficulty remains to be explained in the fact, that Mr. Anderson had sent us since much better formed implements taken from graves in the same mound. It has been incorrectly stated that these weapons have been given to the Museum of Scottish Antiquaries, and I take this opportunity of correcting this statement. I may also here observe, that an illustration of one of the implements attributed by Mr. Laing to the burial mound was really found in the shell mound. In plate I of Mr. Laing's work figures 4 and 5 are said to have come from kist No. 9, while, in reality, they came from a kist at the Birkle Hills; and a specimen from the shell mound, No. 5, is said to be one half the natural size, while, in reality, it is about one third. In plate II, figures 2, 3, 4 and 5 are all from this same kist 9, and the articles are now on the table.

Much now rests on the genuineness of these weapons, and after much inquiry I have arrived at the following important facts. Mr. Anderson did not see one of them found himself, but is dependant on Mr. Sang for his facts. He believes that Mr. Sang found them himself, and places implicit confidence in his veracity. Mr. Sang has, however, a few days ago informed me, that he did not find one of these now exhibited, and that the only one he did find—and gave to Mr. Anderson—was a lance or spear-head in the harbour mound. He says that all these weapons were given to him by the workmen employed, and that he had no reason to doubt their words as to the position in which they were found.

Having thus traced the finding of these implements to certain workmen, I have not thought it worth while to pursue these investigations any further. The implements can now be allowed to speak for themselves. This, too, completes my own account of this subject. Although I visited the Birkle Hills, shell mounds, and harbour mounds, I am unable to offer any opinion as to the nature of Mr. Laing's researches amongst these interesting relics. It is no doubt much to be regretted that Mr. Laing was unable to complete his investigation of these remains. I have purposely confined my remarks to what Mr. Laing considers to be the most important part of his investigation.

I will now only add, that although Mr. Laing's speculation as to the nature of the burial mound, and the stones found, is in my opinion wholly erroneous, yet we are under great obligation to that gentleman for exciting our interest in the prehistoric remains of Caithness. Although, therefore, we may be obliged to relinquish the fascinating theories he has promulgated in reference to the Caithness aborigines, we may yet have eventually to thank him for inducing other inquiries which may throw light on that most interesting subject.

On the motion of Dr. CHARNOCK thanks were given to the authors of the respective papers.

Dr. HUNT said that Mr. Laing had been invited to attend the

meeting of the Society on that occasion, and the following note had been received from him promising to be present, but he regretted that illness had prevented him from attending.

"6, Kensington Gardens Terrace, 22nd March.

"DEAR SIR.—I shall make a point of attending on the 3rd April, unless some unexpected engagement should intervene to make it impossible, which I do not anticipate. By that time I hope I shall have recovered my voice and be able to take a part in the discussion.

"Yours very faithfully,

"(Signed.) "S. LAING."

Mr. C. CARTER BLAKE said they had had five papers read relating to the remains found in Caithness, some of which touched on the osteological characters of the remains that had been laid before the Society by Mr. Laing. Several conclusions were to be drawn from them, which depended, however, on the value of the facts announced by that gentleman. The skeletons found in the burial mound were said by those who had discussed the paper on a previous occasion, to be allied to those of various individuals of different races existing at the present day in Scotland, in Northern Africa, in Australia, and in that part of the globe inhabited by an Indo-European race. The facts as stated by Mr. Cleghorn, Mr. Anderson and others, are that the human remains found by Mr. Laing in Caithness, and supposed by him to indicate the existence in that part of Scotland of a prehistoric people, were those of cast-away sailors of various nations wrecked on that dangerous shore. These theories contrasted much. Mr. Blake ridiculed the notion that the skulls in the burial mound, especially that of the "ungainly female" from kist No. 1, indicated a peculiarly low type of humanity, or that the form of the pelvis exhibited was that of a Negro; and he considered the skull, numbered 1 in Mr. Laing's book, and supposed to be a most degraded European skull, must go to the same limbo as the Neanderthal skull, with which it had been compared. He commented in the same tone on the discovery of a second pelvis in the kist No. 1, observing, that whether male or female, a second pelvis belonging to one skeleton was a remarkable fact, indicating a very peculiar formation in the prehistoric races. It had been said that Mr. Laing's specimens had been too imperfectly preserved to be correctly described; but he denied that there had been any want of care in their preservation, and as to the pelvis on the table, it had been under his (Mr. Blake's) charge since it was taken out of the grave by Dr. Hunt. There was better evidence that that pelvis was associated with the skulls and bones before shown to the Society by Mr. Laing, than in the case of the other bones, which were said to have been taken from No. 1, and were represented to mark a low and degraded form. He thought, indeed, there was not sufficient evidence that any of the bones that Mr. Laing had brought from Caithness were taken from the places from which they were said to have been derived. All the skeletons and skulls and pelvis appear to have been mingled together in absurd disorder. Mr. Laing did not himself seem to know to what they belonged and where they came from,

and there were no accurate facts before the Society on those points. He regretted that Mr. Laing was not present to give some explanation respecting the inconsistencies and anomalies that had been noticed in his book, so as to reconcile them with the facts had been stated. With respect to the implements; when Mr. Laing was asked about those from the burial mound, certain chipped flints and round boulders were pointed out by him as those found in the chief's kist, and he thought that the fact of their being found with a skeleton was evidence that they were implements and weapons. As to that kist the accounts of it from various sources had greatly differed since the day that the remains said to have been taken from it were exhibited by Mr. Laing.

Mr. HIGGINS pointed out several inconsistencies in Mr. Laing's book with the statements he had made at other times. In page 9, for example, Mr. Laing said that he was personally responsible for the actual discovery of every relic and for the description of the positions in which they were found. It seemed, however, very doubtful whether he actually saw *in situ* those said to have come from the burial mound. What Mr. Laing had said to Dr. Hunt respecting the character of the supposed implements found in the kist was contrary to the statement in page 8 of his book, that several other stones had been found in the kist, but that he had rejected everything that had not decidedly been made by man. With regard to the second pelvis found in the kist No. 1, he did not think the finding of a second one there so very extraordinary, for kists were sometimes opened that had two skeletons inside, and that might have been the case with the kist in question. The pelvis on the table was in Mr. Higgins's opinion that of a female; the long bones which had been found by Dr. Hunt with the pelvis confirmed that view, and it was very remarkable that out of the human remains found in seven of the kists, five of them should have been those of females. The account given by Mr. Laing of the places where the bones came from he considered very vague and unsatisfactory.

Dr. CHARNOCK said the name Birkle was probably derived from *byrgeu*, *byrgels*, a burial-place; a word found in several places in the Anglo-Saxon versions of the Gospels and Pentateuch; etymologically connected with *beorh*, a hill, heap of stones, place of burial, a *burrow*, *barrow*, and *birgan*, to bury.

Dr. HUNT pointed out some further incongruities in Mr. Laing's book. In page 40 it was stated that the stone implements were "for the most part rounded, or fractured by nature or by a single blow;" but he (Dr. Hunt) defied any one to say whether a stone that had been fractured by a single blow had been so broken by nature or by art. With respect to the discovery of the second pelvis found in kist No. 1, which there could be no doubt was the same kist indicated by Mr. Laing, he repeated that he found the pelvis on simply examining the kist, and came upon it with the greatest surprise. Mr. Blake was not correct in saying that Mr. Anderson, Mr. Shearer, and Mr. Cleghorn had stated that all the skeletons in the burial mound were those of shipwrecked mariners; but they agreed in considering

the mound to be a naturally-formed hill, and that it afforded no evidence of the antiquity of man. With regard to the implements, little confidence could be placed in them, as it seemed to be not really known where and by whom they were found. It was said that a more perfectly formed implement associated with a skull found on the burial mound was in the possession of Professor Ogston of Aberdeen, and he had been written to requesting him to exhibit them to the Society, but he had not done so, therefore that evidence could not be relied on. Dr. Hunt observed, that though Mr. Laing's book had been rather severely handled, it must be satisfactory to him that Professor Owen had spoken of his researches in Caithness as the type of archaeological investigations. Thus the whole of Mr. Laing's discoveries and his description of them, promised to become a part of the scientific literature of the country, and it was the duty of that Society to submit them to a searching examination, and to correct any erroneous conclusions that might be drawn from Mr. Laing's book. He regretted that Mr. Laing had not been present to reply to the objections that had been brought forward. He could only say, that in the remarks he had made, he had not been actuated by a party spirit, nor did he entertain any repugnance to the idea that the ancestors of the Northern Britons had been cannibals. He felt it impossible, however, to accept Mr. Laing's facts, and he hoped the Duke of Portland would kindly give permission to that Society to complete the excavations in Caithness, that this subject would be followed up, and that the subject would be brought before the Society on some future occasion.

Mr. C. CARTER BLAKE, in reference to the opinion expressed by Mr. Higgins, that most of the skeletons were those of females, objected to the foundation of such an opinion on the length of the bones or the shape of the pelvis now on the table.

Mr. HIGGINS said he had carefully measured the pelvis, and that he thought the measurements as well as the general appearance of the bones warranted the assumption that they were those of a female.

The meeting then adjourned.

APRIL 17TH, 1866.

JAMES HUNT, Esq., Ph.D., F.S.A., F.R.S.L., PRESIDENT, IN THE CHAIR.

The minutes of the previous meeting were read and confirmed.

The names of the following gentlemen, elected Fellows of the Society since the last meeting, were announced:—W. C. Bonnerjee, Esq., F.G.S., 108, Denbigh Street, Belgravia; S. J. Da Costa, Esq., 7, Orsett Place, Westbourne Terrace, W.; Hon. S. Davenport, Adelaide, New South Wales; John Moore, Esq., Adelaide, New South Wales; Robert Peel, Esq., Adelaide, New South Wales; John Towers, Esq., Berkeley Villas, Loughborough Park; H. Victor Martin, Esq., M.R.C.S., Billington House, Surrey; T. A. Wise, Esq., M.D., Rostellan Castle, Cork, Ireland; James Champley, Esq., M.D., 8,

Albion Place, Westbrough, Scarborough; M. Edouard Villin, East Greenwich; J. D. Poole, Esq., M.D., 3, Great Queen Street, S.W.

The following donations were announced:—Apocryphal New Testament (J. Fred. Collingwood, Esq.); Complete set of Reader Newspaper; Hickman on Cancerous Bone (T. Bendyshe, Esq.); Sketches of excavations at Belas Knap, Gloucestershire (W. L. Lawrence, Esq.)

Dr. MACKENZIE SKUES gave an account of two large rolls of Hebrew manuscript which came into his possession in January last on the burning of a village near Aden. They were taken from a church, and he believed one of them was a copy of the Pentateuch and the other the book of Genesis. He could not himself determine the contents of the manuscripts, and he consented to allow of their remaining in the care of the Curator for a short time that they might be examined.

Thanks were given to Dr. Skues for bringing the manuscripts for exhibition.

A paper, of which the following is an abstract, was read by Mr. Bollaert. [The paper will appear at length in the *Memoirs*.]

Contributions to an Introduction to the Anthropology of the New World.
By W. BOLLAERT, Esq., Hon. Sec.

The author, in embodying his experiences of the red man, noticed the erroneous statement which had been made, that the physical configuration of American natives was the same all over the continent. This was not quite the case, even as regards colour; while as to form, feature, physical and mental development, there are marked differences and peculiarities, resulting from causes investigated in detail by Mr. Bollaert. He gave minute descriptions of the various theories which had been propounded to account for the population of America, especially of the known facts regarding the colonisation of the northern parts by the Icelanders in the tenth century. He condemned the theory which Rivero and Tschudi had advocated, that such originators of early American theocracies as Quetzalcoatl of Mexico, Bochica of Bogotá, and Manco Capac of Peru, were Buddhist priests. Mr. Bollaert's own researches on this subject were not confirmatory of this hypothesis. The native traditions of the aborigines were not confirmatory of this theory of monogeny. The author gave a minute description of the materials he had been able to collect concerning the red man, before and after the discovery of America by Columbus, adopting as examples the inhabitants of the Russian possessions in America, British North America, Newfoundland, the United States, West Indies, Texas, Mexico, Central America, New Granada, Quito, Brazil, Chile, the Pampas, and Peru. In his general retrospect of the subject, he said that, as we find about the same general geological formations in the New World and in the Old, it is natural to conclude that the continent of America has an equally ancient date, and has gone through analogous changes. The Old World has its greatest length from east to west; the New, north and south; the great mountain ranges take opposite directions, and the fossil remains have great peculiarities. The native population of America at the period

of its discovery he estimated as over 100,000,000; at present there may be from 10 to 11,000,000. They are said to have some 400 languages, and over 2,000 dialects. He considered the time required for the evolution of each of these to have been vast. He gave a brief conspectus of the distribution of the chief races of man, pointing out in what way they differed from the red men of the New World. He commented on the evidence which had been afforded of ancient human remains at Guadaloupe, in the West Indies (probably recent), the Florida coral reef, Natchez on the Mississippi, and the Brazilian bone-caves. Pottery had been found in Ecuador, under circumstances which showed that it had been submerged for an unknown time under the sea, and again upheaved. He pointed out some important differences between the physiological characters of the white and red man, and concluded by affirming that his inquiries into the subject of species and varieties led him to abandon the unity or monogenistic view, for the plurality or polygenistic theory of separate creations.

The PRESIDENT proposed the thanks of the Society to Mr. Bollaert for his very able and elaborate paper on such an interesting and complicated subject. The motion was unanimously agreed to.

The Rev. DUNBAR HEATH said the paper displayed a vast amount of learning, and contained much valuable information. It could not be expected that he should follow the author of the paper through the many details he had brought forward; but he would confine himself to the opinion expressed in the last sentence respecting the origin of man in the New World, to which point the general bearing of the paper was directed. Four hypotheses had been advanced to account for the origin of man in America. It had been supposed, in the first place, that the original inhabitants came from Asia by immigration on the north-west of the continent. In the second place, it was conjectured that they came from Asia by sea; thirdly, that they arrived from Africa, in that part of South America nearest to the African continent; and in the fourth place, it had been conjectured that America was the remaining portion of a vast continent now submerged, and that the inhabitants were the descendants of a people who formerly occupied the country when America was connected with the Old World. Mr. Heath objected to each of these hypotheses. He objected to the supposed African origin of the red man, on account of his colour and general physical appearance. The same objection, though in a lesser degree, would apply to the assumed Asiatic origin by immigration from the northern parts of Russia. In considering the probability of America having been peopled by persons arriving there by sea, they ought to bear in mind that those assumed people would belong to remote antiquity; they would belong to the age of the mammoth in Europe, and of the mastodon in America—a period when the means of locomotion must have been very limited, and ships unknown. When, therefore, the inadequate means of making a sea voyage at that early period were considered, he thought that hypothesis must be rejected. With regard to the hypothesis of a submerged continent of Atlantis, he was inclined to think it presented

greater probability than any of the other three. It was known that enormous revolutions in the crust of the globe have taken place in geological ages; and it was possible that there might at one time have been a junction between America and the land of the Old World. But, assuming that to have been the case, what kind of people would have been found in America when discovered by Columbus? The Europeans are said to have been descended from the Aryans, and that the American Indians do not belong to that race. But the period of the assumed separation of the New World from the Old was long before the time assigned to the Aryans; therefore, in any case, the antiquity of the people must have been enormous. When, however, the remarkable distinctions of type between the fauna and flora of America and the Old World are considered, and also the great distinctions in the physical characters of the men; when such great divergencies and distinctions were found to exist, he thought the weight of evidence was against any of the four hypotheses he had considered, and was in favour of the hypothesis of a separate origin of man in various parts of the world.

Mr. MACKENZIE alluded to the statements of the American Commodore Maury, of the great facility of sailing across the Pacific to the Peruvian shore. This might show the possibility of the peopling America from Asia, and that civilisation might have proceeded from the same quarter, raising and advancing the indigenous races already existing there. The wonderfully advanced state of the South Americans under the Incas when first discovered, showed that the civilised race could not be a low race; and, had progress been allowed, they might have become a valuable race of mankind. At the same time, he considered it not impossible that South America might be the submerged island of Atlantis spoken of by the ancients. It was known how careful the ancients were of their traditions; and the indications in the works of Plato, and of other Greek writers, of a remote island of Atlantis, might have had a foundation in truth. The stratification of the country towards the east coast of Brazil, also tended to bear out that opinion. With regard to the hypothesis of immigration across Behring's Straits, he thought the hypothesis of immigration need not be limited in that direction; for, at distant periods previous to many geological changes, it was possible that people might have come from regions now unknown to us, and the Esquimaux might have come across the North Pole. He thought it proved, however, from the accounts given by Mr. Squier and other investigators, that the civilisation of America must have come from the South, and not from the North, there being evidence from articles found up the rivers that flow into the Gulf of Mexico that early trade must have been carried up those rivers. With regard to the comparative age of America. As the animals of the existing fauna are generally smaller than those of the Cis-Atlantic continents, it seemed to show that, in accordance with the Darwinian theory, such species had not existed for so long a period in America. Mr. Mackenzie alluded generally to several of the points mentioned in the paper, and expressed the hope that, by the aid of the Maya alphabet discovered by Mr. Bollaert, and

by other discoveries that have been recently made, a solution would be found of the difficulty of accounting for the origin of the red man in the Old World, a race emphatically indigenous to the soil of America, but subject to many foreign influences at a very remote period.

Mr. C. CARTER BLAKE, adverting to that part of the paper referring to the osteological characters of the South American Indians, observed that there are less than six complete South American skeletons in Europe, and the bones were scattered, and not adequately described or figured. There were, therefore, scarcely any facts on which it would be safe to pronounce an opinion; and it could not be said whether the osteological characters do differ from those of the inhabitants of the Old World. The same remark applied also to the supposed differences in the form and character of the brain. The South American brain figured in Nott and Gliddon's *Types of Mankind*, was represented on a method so different from the usual manner of figuring the brain, that it was not comparable with the brain of any skull in the Old World. In the generalisation of the form of skull of the inhabitants of North America and South America, it had been shown by Retzius that in the eastern flat country of the latter there is a race of men with skulls more or less elongated, while in the western mountainous district, with the exception of the Aymará, there is at present a short round-headed race. That was said to be the general result in South America; and in North America the results were found to be more or less the same. In the general conclusions drawn from the varied researches of the author of the paper, he said that it required courage to ponder on the origin of man, and to state results in opposition to the opinions generally entertained. But he (Mr. Blake) considered that an anthropologist in 1866 should require no artificial stimulus to inspire his courage to ponder on the origin of mankind. Scientific men, if they had opinions worth uttering, should not be afraid to divulge them. They must take care, however, in departing from the monogenistic theory, and substituting for it the polygenistic hypothesis, that they did not get involved in equal difficulties. The polygenistic hypothesis was as vague and unsatisfactory as the monogenistic one, and was in itself essentially vague. In considering the probable origin of the red man of the New World, he thought the theory of development ought to have been considered. All such speculations were, however, very unsatisfactory; and he hoped that the word creation would be eliminated from the vocabulary of anthropology. It was difficult for the student of physical science to conceive the meaning which should be attached to the word "creation", on which modern science did not appear to throw much light. Mr. Mackenzie had referred to the passage in Sheridan's comedy, where the beefeater uses a phrase of Shakespeare's, and then excuses himself on the ground that it was a mere accidental coincidence, and that Shakespeare had unintentionally used the quotation before him. Now, *pereant illos qui ante nos dixerunt* was a very good rule, and one on which Mr. Mackenzie had taken care to act. Mr. Blake was surprised to hear the opinions of Buffon, published in 1760, reproduced that evening, as to the inferiority of the fauna of America compared with that of the Old World. That statement had long since been

contradicted, for there were hundreds of instances in which the animals of America were of larger size than in the Old World; among insects, indeed, that was remarkably the contrary. The statement was neither true nor new. He thought the Society were much indebted to Mr. Bollaert for the facts he had stated as a contribution to the anthropology of the New World; but he hoped it would be long before they agreed to generalise respecting the origin of a population until more was known of what it is composed.

Mr. BOLLAERT, in his reply, expressed satisfaction that Mr. Heath agreed with him in his general conclusions. He did not concur with Mr. Mackenzie in the suppositions he had advanced, especially as to the silting up of the ground towards the Cordilleras, for the *detritus* from that mountain range had moved in the opposite direction. With respect to the Maya alphabet, he said he should shortly lay the results of some further investigations on the subject before the Society; and he hoped next year also to lay before them an examination of the *Codex Americanus* of Dresden, also of a similar one in Paris. With regard to the remarks of Mr. Blake, he observed, that when he (Mr. Blake) first saw the skeleton of the South American Indian now in the museum of the Society, he had expressed great delight, and said it exhibited great differences from any known type. He had, however, not laid much stress on that point in the paper, but had only said that we are on the threshold of discovery as to the anthropology of the New World, and that he must leave it to the giants of science to determine the value of peculiar osteological structure and physiological characteristics. Mr. Blake had already done much to advance the science of anthropology, and he hoped he would do much more.

A paper by Captain BURTON, on an *Hermaphrodite from the Cape de Verde Islands*, was then read. [The paper will appear at length in the *Memoirs*.]

The subject was eight years of age, and the appearances presented led Captain Burton to infer that it was essentially a female.

The PRESIDENT said that was the first paper the Society had received from their Vice-President, Captain Burton, since he left England, and he hoped they should soon have more. He understood that the case mentioned was a somewhat extraordinary one. He said he had to make two announcements of considerable importance. The Council had that day decided as to the promotion of the formation of local Anthropological Societies; and in a few weeks an Anthropological Society would be formed in Manchester. The Council had also made arrangements for keeping the Fellows of the Society informed of their proceedings, and that abstracts of what took place at their meetings would be forwarded to each of them with a copy of the *Reader*. A general circular would also be issued in the course of a few days, calling on the Fellows to propose members for election, and urging them to provide papers to be read at the next meeting of the British Association.

The meeting then adjourned.

MAY 1ST, 1866.

JAMES HUNT, Esq., Ph.D., F.S.A., F.R.S.L., PRESIDENT, IN THE CHAIR.

The minutes of the previous meeting were read and confirmed.

The following new Fellows were announced as having been elected since the last meeting :—William Donald, Esq., 69, Regent Street; Frederic A. B. Craufurd, Esq., Capt. R.N., 41, Claverton Street, Pimlico; James Smith, Esq., F.R.C.S.E., Southwick, Dumfries; Henry Pratt, Esq., M.D., Hampton Court, Hereford; John Forbes Robertson, Esq., Mountfort House, Barnsbury Square, N.; Jennings Holgate, Esq., Penton House, Staines, Middlesex; Captain W. H. Stewart, 3rd New York Cavalry, Golden Cross Hotel; W. B. Kesteven, Esq., F.R.C.S., Manor Road, Upper Holloway.

Local Secretary.—R. Austen, Esq., F.A.S.L., Rio de Janeiro.

The donations received were announced as under :—Owen, Comparative Anatomy of Vertebrates; Nichol, Geology of North of Scotland; McCosh, Examination of J. Stuart Mill's Philosophy; Ditto, Induction of the Mind; Marshall, Index to Herald's Visitations; Palaeontographical Society's Transactions, and other works (T. Bendyshe, Esq.); Polyglott Lexicon (Dr. R. S. Charnock); Garbiglietti, De una singolare e rara anomala dell' osso jugale (Dr. Barnard Davis); Thurnam on the weight of the Brain (the author); Engraving of Botocudo Indians (K. R. H. Mackenzie, Esq., F.S.A.); Skull from Quiloo (Dr. F. Skues).

The PRESIDENT announced that the catalogue of the Library of the Society was in preparation, and that all books presented before the end of the session would be incorporated in it.

Mr. C. CARTER BLAKE made some remarks on two skulls on the table, one exhibited by Henry Prigg, Esq., jun., and the other presented by Dr. Skues. The skull presented by the latter had been received from Dr. Harron, R.N., who thought it had been brought from Dahomey, but it had since been discovered that it was marked Quiloo, and he believed it came from the Zanzibar coast. That opinion he (Mr. Blake) believed to be correct, as the incisor teeth were deeply filed, in the manner prevalent at Zanzibar. At Zanzibar the practice of filing the teeth was very common among the Negroes; and in most of the skulls that came from that part of Africa the teeth were more or less filed. In the specimens on the table all the incisors were filed to an enormous extent.

The following papers were then read :—

On Hindu Neology. By Major SAMUEL R. I. OWEN. Abstract. (The paper will appear at length in the *Memoirs*.)

The author called attention to the efforts at present being made by the Hindus to free themselves from the mental slavery of superstition. The same strategic ground, astronomy, has been taken up by the

more advanced Hindus as was used as the battle-field by Europeans some years ago. In 1862, Major Owen was present when a paper was read at Benares, before a society got up by, and exclusively composed of, Hindus. The society amounted then to sixty-four members. The author of the paper, Pundit Bapu Deva Sastri, a Maharatta, is Professor of Astronomy, Mathematics, and Sanskrit at Benares. The object of the paper was to show the astronomical errors in their ancient Scriptures, the Sastras, comparing what is there written with the established facts of science, and calling especial attention to the procession of the equinoxes, not there taken into account, and the results that arise in the course of long periods by the computation of time, when this movement of the heavens is not attended to; and how the fasts and festivals have thus been made to fall at wrong seasons. Major Owen gave the whole paper at length, with a view to show that the author's opinion was distinctly given that the established facts of astronomical science were irreconcilable with their ancient holy books, the Sastras, although he, as a worthy follower of Brahma, was most anxious to conciliate and please the gods. He concluded by pointing out that the Hindu race was essentially advancing in intelligence, although at present the two races (Hindu and English) do not think in the same channel. If a thought could be conceived to have two ends by which it may be seized, the Hindu and European would almost invariably take hold of it by the opposite extremities.

The PRESIDENT having proposed the thanks of the Society to Major Owen for his paper,

Mr. BROOKES rose next, as he said, to object to the proposition, but for the purpose of inquiring why such a paper had been read. He had understood that all the papers offered to be read at their meetings were first submitted to the Council for their approbation, and he should like some member of the Council to state the reason why a paper which had no anthropological bearing should have been allowed to occupy the time of the Society?

Mr. MACKENZIE observed that the question was, no doubt, quite pertinent and a proper one to be put, but it admitted of a very simple answer. The paper was permitted to be read because it was considered highly anthropological, since it conveyed a knowledge of certain psychological views of the Hindoos. It was a question which was answered by the paper itself. The only objection which he made to the paper was in the misapplication of the term astronomy to what should be more properly called the astrology of the Hindoos.

The Rev. DUNBAR HEATH considered the subject of the paper to be decidedly anthropological. It was claimed for the Hindoos that they were an early branch of the Aryan family, that their race has dominated over the whole world, and that they are the only progressive race. Such a race must conceive new ideas, and have the power to assimilate new truths, and the strength of that race and its progress would depend on that power. In such a race also, it may be presumed, we should be able, within the bounds of one community,

to recognise the most opposing modes of thought and action ; that was the case with the greatest nations in the world. Those nations that can give liberty to the most diverse forms of action are the highest. Multiformity was required in a progressive race, and in this paper it was shown to exist among the Hindoos. An intensity of light had been thrown upon them, and the paper showed that the Hindoo people are taking advantage of a portion of that light, and that they are beginning to see that the assertions in their ancient books are not correct. We at this day are in the same condition, and we are learning to ascertain by the light of science that things which were formerly recognised as facts are not so. It was curious to observe that the nations on whom this new light has been thrown are all in the same boat with us, and are beginning to perceive the inconsistency of facts with what they have been taught in books ; and it was interesting to notice how those nations, who are thus becoming enlightened, act under different circumstances. That gave interest to the paper in his mind.

Mr. SALMON remarked that it was stated in the paper that the minds of the Hindoo and European are so differently constituted that if any subject were proposed for argument they would take different ends of the same thought. If, however, he understood the paper rightly, it showed that was not the case, and that the Hindoos were beginning to reject the crude notions of astronomy and to adopt the right. If the Hindoo mind operates differently from that of the European, he should like to know whether that arose from actual difference of mind or from the prejudice derived from books.

The PRESIDENT replied to the challenge of Mr. Brookes. The remark, he said, was a fair one, and he would state what was the practice adopted with regard to papers sent to the Society to be read at their meetings. It was the rule of the Council to refer any paper to some member to consider whether it was fit to be read ; and the referee reported whether it was fitted to be read, and whether it ought to be published in the Society's *Memoirs*. If the opinion of the referee was favourable, in that case the Council relied on his judgment and did not go further into detail. It was twelve months since the paper had been sent in, and he regretted that it had not been read before. With regard to the character of the paper, he considered it was well deserving the consideration of the Anthropological Society. It showed what was going on in India in the mental development of the people. It showed that in the east the same inconsistencies between observed facts and written statements which had excited attention in Europe were beginning to be seen by another, and what were considered an inferior race. By the exercise of their rational faculties they were beginning to see that three and one cannot be the same ; and the paper entered into the consideration of matters that developed the character of the mind of the Hindoos. It was for Mr. Brookes to show that such a paper did not throw any light on the science of man.

Mr. BROOKES said the Council had no right to call on him to perform the duty which devolved on themselves. It was incumbent on

the Council to prove that the paper was anthropological, and it was not for him to show the contrary. He admitted that the science of human nature was very extended in its bearings, but that Society being devoted to the study of man, he contended that they ought not to spend their time in considering the astronomical views of any race 1000 years ago, and he could not see any anthropological bearing in such consideration.

Professor MACDONALD thought that Mr. Brookes had shown that the *onus probandi* lay with the Council and not on him. The President, however, had shown that the Council had taken a very fair way of ascertaining the fitness of the paper, and he did not find fault with them on that account, but he objected to their throwing the *onus probandi* on Mr. Brookes. He thought the paper was an important one in an anthropological point of view; and that the higher region of thought referred to stimulated discovery. Astronomy has ever had more hold on the lower classes in India than in the western part of the world, and he wished that a higher degree of astronomical knowledge was more widely diffused, and especially in this country. As to the reference which the discovery of astronomical truths had on their Scriptures in correcting errors, he thought that course of inquiry should be favourably received and encouraged in our own case. He regarded the paper as a valuable contribution to anthropology.

Major OWEN in reply to Mr. Brookes observed that the paper by the Baboo was no doubt astronomical, but he had brought it forward to show the change of ideas that was beginning to take place in the Hindoo mind. Any peculiarity in the form of the skulls of Hindoos was considered well deserving the attention of the Anthropological Society, and if they regarded with interest differences in the form of the skull between them and Europeans, why should they not also look with interest on the difference in their minds? The paper showed that the Hindoos have their own distinct and peculiar ideas, and that in their own peculiar way they have found that their Scriptures do not give a truthful account of natural phenomena, and must be altered. It was a great fact, that, in Benares, the principal seat of the Hindoo religion, a paper should have been read and published under the auspices of one of their learned societies, which threw doubt on the accuracy of the Sastras. He did not see that any objection could be raised to the paper in whatever light it was considered. With respect to Mr. Salmon's objection with regard to the apparent inconsistency of the statement, that if there were two ends to any idea, the Hindoo and European would take hold of it at the opposite extremities, he did not mean to assert that they would therefore differ in their conclusions. They might arrive at the same results but by different means.

On the Alleged Sterility of the Union of Women of Savage Races with Native Males, after having had Children by a White Man; with a few remarks on the Mpongwe Tribe of Negroes. By R. B. N. WALKER, Abstract. (The paper will appear at length in the *Memoirs*.)

He referred to the testimony of Count Strzlecki, who has asserted that

women of certain savage races who have cohabited with Europeans become sterile with men of their own race, and bases his statement on observations made by himself amongst some tribes of American Indians, Polynesians, and aboriginal Australians. Mr. Alexander Harvey had adopted and strenuously supported this theory; which Mr. Walker denied to hold good in at least one tribe of pure negroes, the Mpongwe of Gaboon. Few cross-breeds certainly exist there, the number not being more than fifteen. These half-breeds were the offspring of English (6), French (5), Germans (1), Spanish (1), Portuguese (1), the remaining one being either Spanish or Portuguese. Three several instances were cited by him of cases which invalidated Count Strzlecki's law. His experience with regard to the fertility of half-breeds amongst themselves was against the existence of such a condition, only one instance being known to him. The Mpongwe tribe on the sea-coast was fast becoming extinct, one-third of the tribe having been carried off by small-pox during the last year. The Adjomba nation, of which the Mpongwe tribe is an offshoot, is situated some seventy or eighty miles from the settlement at Gaboon. Mr. Walker was about to make some little stay in that country, which will be the first stage of his journey into Western Equinoctial Africa.

The thanks of the Society were given to Mr. Walker for his communication.

Mr. C. CARTER BLAKE observed, with regard to M. Broca's work, that it summed up the general results which had been arrived at on the subject, and pointed out the conclusions drawn from them before his time, to the effect that the first (European) male who cohabits with a negress, has influence on the offspring afterwards produced. He alluded to the experiments made by Lord Morton with a zebra and a horse, in confirmation of that opinion, and to John Hunter's analogous cases. With regard to the assumed law of Count Strzlecki on the subject, his results had been since "pooh, poohed," but were not so improbable as at first sight may be thought. It was asserted, that as regards the Australians, there was great probability in Count Strzlecki's opinion, and it was confirmed in some degree by what was observed in the lower animals.

Dr. BEIGEL considered that the principal point to be borne in mind in considering this subject, had been left out in the paper, viz., the state of the womb. Women were often met with who had borne children, and then ceased to propagate in consequence of some deformity which prevented it. In such cases, before any conclusions were drawn, it should be ascertained whether the womb was in a healthy state. In almost all women who had borne children, and who afterwards became sterile, he believed it would be found there was some peculiar mechanical condition which prevented conception. No allusion to the condition of the womb had been made in the paper, and no conclusions could be arrived at in any case, unless an examination had taken place to ascertain whether there were any cause to prevent conception.

Professor MACDONALD observed that it had been frequently said

that Australian women, after connection with Europeans, were subject to disease, and if that were the case, it was not unlikely that gonorrhœa might cause some stoppage in the womb. The impress of the first connexion, in certain cases in domestic animals, was known to have great effect. In sporting dogs, it was found to have an important effect. If a bitch has had a stray connexion, in all subsequent litters one or two of the mongrel breed will appear. With reference to the experiments of Lord Morton, he states that the sire of the first produce was a quagga, as the leg markings of the three foals were like those of a zebra, marking change of species.

Major OWEN said that it would be advisable to obtain from India some current data which might be procured from the half-caste families who, as a rule, intermarried; this would show whether such unions were prolific through several generations. Medical men and civil officers had the best opportunity of obtaining such information—genealogies in fact. It might be obtained from records and memory dating as far back as possible. We should be much indebted to any who would take up this subject and work it out faithfully to the full extent of their means of information.

Dr. LANGDON H. DOWN remarked, that he had always considered that a negro woman who had had fruitful connexion with an European, was rendered sterile in her subsequent connections with negroes, but he thought that further evidence was wanted on the subject.

Mr. MILLIGAN said he had known several instances which contradicted the assumed law of Count Strzlecki. In Tasmania, the natives told him there were many instances of women, who after having had connexion with Europeans, returned to their black husbands, and had children by them afterwards. In one case a woman had children first by a black man, then one, a girl, by a European, then more black children, and having again lived some time with another white man, she had a white child, also a girl; and lastly, having been removed to Hindois Island with the rest of the Aborigines of the island about 1830, she became the wife of another black man and bore to him one son. Mr. Milligan added that he had himself seen the two half-caste girls referred to, and also the black boy born last of all.

The PRESIDENT remarked that the value of Mr. Walker's paper consisted in its presenting inducements to travellers to investigate the question, which had been in dispute for twenty years. If their local secretaries, and others residing in those parts of the world where information on the subject could be obtained, would investigate the matter and give more reliable facts, they might arrive at the truth on that disputed point, but at present they were in want of satisfactory facts, which he hoped would in time be forthcoming.

Description of a Living Microcephale. By JOHN SHORTT, M.D., F.A.S.L.
Abstract. (The Paper will appear at length in the *Memoirs*.)

The individual description was the offspring of Maharatta parents, about sixteen years of age, four feet one inch in height, and weighing 54 lbs. avoirdupois. He is of a tolerably well-formed figure and pro-

portion, except the head, which is extremely small and rounded, with the bones apparently well consolidated, and the scalp covered with black hair. The teeth are large, the lower central incisors diverging obliquely on either side, leaving a triangular gap between them. The ears are large, and the elbow joints cannot be straightened out fully. The mental condition may be termed infantine; he cannot utter a single word; the only sound that issues from him is *nah*. He laughs heartily, yawns occasionally, is quite deaf, does not know one man from another, totters slightly from side to side, is filthy in his habits, and does not care about clothes. Complete measurements of the subject were given, according to the method adopted by Messrs. Scherzer and Schwarz.

Dr. DOWN said he had had a great many of such cases, one of which was of very low organisation, yet he had always found, that with care, the persons with skulls so abnormal, might to a certain degree be educated. Though the brain was so small, it might be of a better quality, and he thought microcephali were more capable of education than might be supposed.

Dr. BEIGEL said he had seen fifteen instances of the same kind at Colney Hatch, and he agreed with Dr. Down in thinking that by proper training such persons might be educated.

The following paper, by E. SELLON, Esq., was taken as read, the hour being too late for the reading of it.

Some Remarks on Indian Gnosticism, or Sacti Puja, the Worship of the Female Power. By EDWARD SELLON, Esq. Abstract. (The paper will appear at length in the *Memoirs*.)

The author directed especial attention to the austere principles inculcated by both the Saiva and Vaishnava Codes of the ancient Hindu faith. The Sactya creed was one of these. Numerous books in Sanskrit verse are possessed by it, and it has been gaining ground in India for some years, although it has lately sustained a check at Bombay, which may ultimately lead to its suppression. The Sactya creed professedly acknowledges Brahma, Vishnu, Siva, and all goddesses and demigods, but declares them all to be subordinate to the great goddess, who is emphatically power. The creed is set forth in the remarkable and recondite volumes of the Tantras, which some years since were almost sealed to foreigners, but a translation of which has at length been obtained. The author gave extracts from these Tantras, which were looked upon by the Brahmins as undoubtedly ancient, more ancient, indeed, than the Puranás. Great license was accorded to the followers of the rule prescribed in these works. The author described in detail the ritual and the incantations by which this mode of worship is practised, and pointed out that the Eleusinian mysteries bear a very striking analogy to the Sactya; and that those writers are in error who have asserted that the mysteries of Eleusis were confined to men. A reference to D'Hancarville will give several instances of the initiation of *women*. It having been shown that the signification of the Syrian name of Baal (Yahveh) was absolutely the same as that of the Jewish god, and that both names

had the same signification—"he makes to live," or "he makes to be"—he concluded that the Syrian Yahveh [Baal-peor] and the Jewish Yahveh [Jehovah] were one and the same deity, though not worshipped with the same images or ceremonies, the Syrians exhibiting their emblems on every high hill and under every green tree; the Jews mysteriously concealing their emblems in an ark or coffer. Clemens Alexandrinus had shown the phallic purpose of the mystic arks of Egypt; and Mr. Sellon inferred a somewhat similar purpose to have been subserved by the Ark of the Covenant.

The Meeting then adjourned.

MAY 15TH, 1866.

JAMES HUNT, Esq., PH.D., F.S.A., F.R.S.L., PRESIDENT, IN THE CHAIR.

The minutes of the previous Meeting were read and confirmed.

The following gentlemen were announced as having been elected Fellows: John Fraser, Esq., 75, Tithebarn Street, Liverpool; Dr. Frederick Skues, Staff Assistant-Surgeon, 2, St. John's Road, Upper Holloway; Thomas Laurie, Esq., Longstone Terrace, Greenwich; John O'Connell Byrne, Esq., 24, Mark Lane; Edwin Lander, Esq., Consul, Birmingham; Charles Hamond Alpe, Esq., 37, Montpellier Road, Peckham; Charles O'Callaghan, Esq., M.D., Killarney.

Frederick Edward Pearse, L.R.C.P. Ed., High Cross, Sampford Peverell, near Tiverton, was elected a Local Secretary for Tiverton.

The following present was announced, and thanks were voted for the same. Photographs of Andaman Islanders (J. Bainbridge Baxter, Esq. M.R.C.S.)

Mt. BAXTER said, with reference to the photographs of Andaman Islanders presented, that the seven persons photographed (two men and five women), were brought to Calcutta, but though the islands were so near to that presidency, little was known of the race who inhabited them. The principal thing remarkable in the form of the skull, was a depression on the top of the head in the female, which he believed was caused by carrying heavy weights on their heads. He believed the race was fast dying out, therefore the photographs possessed additional interest.

The PRESIDENT observed that the Society were anxious to have such photographs; they had been accompanied by extracts from the Indian papers, giving an account of the individuals, and the subject would be brought forward at a future meeting.

The following papers were read:—

On the Analogous Forms of Implements among Early and Primitive Races. By HODDER M. WESTROPP, Esq., F.A.S.L. (The paper will appear at length in the *Memoirs*.)

The author commented on the great identity which prevailed in the instruments of warfare, and tools used in countries most widely apart. Man, in all ages, and all stages of his development, was a tool-making animal, and his instincts and necessities lead him to fashion

instruments and tools suited to his requirements. The same universal process of mind and instinct will lead the Australian, the New Zealander, the Peruvian, and the Scandinavian, to shape and fashion a stone weapon. The author described in some detail the characteristic forms of the gravel drift, flint implements of Ireland, and polished stone implements. The following terms were proposed by the author to distinguish them—Palæolithic, Mesolithic, Kainolithic. He briefly discussed the chief antiquities of the bronze age, and remarked that the same alloy (10 or 13 per cent. of tin) existed in the bronze weapons of Europe, Egypt, Peru, and Mexico.

The PRESIDENT said he was very sorry that Mr. Westropp was not present to answer the questions to which his paper would probably give rise, but it was very suggestive, and he was sure the Society would return their thanks to the author. It opened a large question, and indulged in some wild speculations, for which there seemed no sufficient data; the assertion that civilisation proceeded in a universal sequence, seemed to have little foundation, and in the present state of knowledge, the facts were so limited, that it was not safe to draw any conclusions on the subject. To show how little reliance is to be placed on isolated facts as indications of the state of civilisation, he mentioned, on the authority of a clergyman, that in Zetland, a woman was seen cutting cabbages with a stone implement, identical with those usually attributed to the stone age.

Mr. T. BAINES explained the manner in which the manufacture of stone spear-heads is carried on in Australia, and stated that some stone implements have recently been discovered in Africa, near the Fish River, which were not now used by the natives, and pointed to the existence of a race of men in that part of Africa before it was occupied by the Hottentot. In Australia the natives use stone weapons at the present day. On one occasion he came to a place where there had been a manufacture of those weapons, numerous chippings being found about the spot. He stated that in making the implements, a large stone is selected to act as an anvil, and against it the natives strike the stone to be chipped into form; three chips, supposing every blow to tell perfectly, would be produced in forming one weapon, but allowing for failures we may suppose at least thirty to be necessary. There were many failures, and those, with the pieces of stone chipped off, were lying about the spot where the supposed manufactory of the implements had been carried on. It was impossible, he said, that the implements found could have been produced accidentally, in confirmation of which opinion he referred to the fact, that nothing approaching the shape of a spearhead is ever found among stones broken for road making.

Professor MACDONALD said the kind of stone implements found was no indication of the age of civilisation, inasmuch as the character of the implements must depend in a great measure on the nature of the stone of which they were made. Bronze and iron implements were a safer index of the course of civilisation, for in such cases the same material was fashioned in different forms. The axe implements of the present day are, in general form, similar to those of early

times, with the exception of the mode of fixing the handle, and the discovery of the time when that change was made might be useful in ascertaining the progress of civilisation.

Mr. HIGGINS observed that similarity in the composition of the bronze employed in making implements, did not bear out the views of the author of the paper, for every people would try what mixture of tin and copper was best adapted for the purpose, and would soon obtain the same results. He considered it as established, that people who had once acquired the art of making iron implements never went back again to stone.

Mr. C. CARTER BLAKE observed, in reference to that part of the paper in which Mr. Westropp noticed the similarity of the proportions of copper and tin in all bronze implements, that it was very surprising that in Peru, where tin was almost unknown before the time of Columbus, the inhabitants should have been possessed of good workable bronze. In Mexico, where tin was common, the fact was not surprising.

Rev. DUNBAR HEATH pointed out the distinction which mineralogists make between cleavage and fracture in the class of stones likely to be adopted in forming weapons, and considered that the shapes of the implements must consequently vary with the nature of the stone. All the vitreous class of stones have a conchoidal fracture, and they cannot be broken in straight planes, the surface of the fracture being either concave or convex. Flint, for example, has a conchoidal fracture, and from the description that had been given of the method of making stone implements, it might be inferred that if made of flint, they would present conchoidal fractures.

Mr. PINKERTON remarked that gun flints are perfectly flat, and he thought much might be learnt respecting the ancient flint implements from the makers of modern gun flints. Many of the common flints found in this country, he said, have a completely straight cleavage, and on one side are perfectly flat.

Major OWEN said the fracture of flint was no doubt conchoidal, but when broken in large pieces, the fracture appears flat, and in making gun flints, the flattest parts are selected for the lower surface, and the surrounding parts are broken off.

Mr. BAINES said that the Australians use jasper and agate for their spearheads, and for their axes and other implements they make use of trap rock.

Professor MACDONALD observed that flint is only found embedded in chalk, which does not exist in Denmark, therefore it became a curious question, whence the flint implements discovered there were derived.

Mr. HENRY BROOKES thought it was a mistake on the part of the author of the paper, to attempt to fix a date to civilisation by the use of those implements, unless they were found generally in the same country, and used by the same race. It was possible that in some countries civilisation had advanced to a high pitch among one portion of the people, while others might be in the rudest state, as was found to be the case at the present time. In some parts of the kingdom, as

the President had mentioned, stone implements might still be used, but they did not belong to our age; the people who used them had simply been left behind in the progress of civilisation, and their existence did not stamp our period. The discovery of races using bronze or stone implements, merely indicated that the people were the remnants of races that have not intermixed with the rest of mankind. It was probable that civilisation might have progressed for many thousands of years, and yet there might be races who had not arrived beyond the first stage.

Mr. MACKENZIE adverted to the fact that implements made of the same kind of stone, and of similar construction, are found in a variety of districts; that similarity was by no means an index to the comparative age of civilisation, for all the stages of civilisation might exist together for a long period. He held the opinion that the earth was older than one can conceive. He did not suppose that we all originated from Adam, but that we were all children of Mother Earth, and it was possible that the advance of all the periods of civilisation was aided by Mother Earth. That doctrine, he knew, was laughed at by modern science, but modern science had not yet corrected it.

The PRESIDENT called on Mr. Mackenzie to confine his remarks to the question before the meeting.

Mr. MACKENZIE, in continuation, observed that there was no evidence to support the views of the author of this paper. They should try to find some uniformity of design between the implements discovered in various parts of the globe. Such implements were very likely to be imitated, and it was desirable to obtain a standard of flint implements, by which they might be gauged. One of the most perfect, he thought, was one brought from the Zetland Islands by Dr. Hunt.

Mr. DIBLEY considered that there is a general uniformity of design perceptible in the flint implements found in all parts of the world; the idea in every case being to make an instrument that would cut; but varying slightly in form according to the nature of the stone.

The PRESIDENT thought the author of the paper did not go far enough to prove his position. If he could establish an analogy between the character of the implements and the state of general civilisation, it would be important, but he had not done so, and the paper was rather speculative than scientific. He hoped that in some future communication on the subject, the author would be able to show that all the early people who inhabited the earth had analogous forms of flint or stone implements.

Professor MACDONALD remarked that in the forming of stone implements, there could be no more ingenuity exercised by one race of men than by another, for they would be made of such form as the rock would permit. The progress of civilisation, as indicated by implements, could therefore only be traced in those made of bronze or iron, which admitted of the exercise of greater art.

After a few remarks from Dr. CAPLIN, on the varieties of stone from which cutting implements might be made, the discussion ended.

On a Deposit containing Shells and Animal Remains at Newhaven in Sussex. By COL. BEAUCHAMP WALKER, F.A.S.L., Assistant Quartermaster-General, and Lieut. ARDAGH, R.E. Communicated by Professor R. OWEN, F.R.S., Hon.F.A.S.L. With *Notes upon the Animal Remains*, by C. CARTER BLAKE, Esq., F.G.S.; and *on the Condition of Deposit*, by W. TOPLEY, Esq., F.G.S.

No. 1. Colonel Walker to C. Carter Blake.

“Shorncliffe, January 5th, 1865.

“DEAR SIR,—I have been recommended by Professor Owen to send to your Society a copy of a memo. which I forwarded to him of remarks on a deposit found at Newhaven, and which was brought to my notice last Saturday when making an official visit to that station. If I can afford any further information or assistance in this matter I beg that you let me know.

“Very faithfully yours,

“BEAUCHAMP WALKER, Colonel,

“A.Q.M. Gen. South Eastern Division.”

No. 2. Enclosure referred to in No. 1.

“Shorncliffe, January 5th, 1865.

“There is at Newhaven, close to the site of the fort now under construction, a very interesting instance of the kitchen-midden. The summit of the hill above the government works is crowned with an old fortification, from its construction, of a date probably anterior to that of the Roman occupation of Britain. Immediately in the face of the cliff, which is here full of faults, and which has manifestly receded, even in quite modern times (not so much alone from the encroachment of the sea as from land springs and other defects in the cliff itself) to seaward of the line of the old earthen wall, a band of mixed shells, bones, and pottery of decreasing thickness from centre to ends is found about twenty inches below the surface of the ground. Under this layer is a thickness of about the same depth of earth, then a thin layer of broken stones or pebbles, and underneath this the natural strata of the coast formation.

“This is not the only place in which remains of food deposits occur in the vicinity of this old work, which has been bisected by the ditch of the new fort, but the place I refer to is, from its having been exposed by the degradation of the face of the cliff, the most accessible and certain ground for further investigation. The bones appear to be those of both birds and animals; the shells those of the ordinary shell fish of the coast, oyster, mussels, and limpets; and the pottery of a rude description, but well baked and retaining its colour.

“The most singular relic which I picked up in the course of a short official visit to Newhaven, was a boar's tusk, nearly three inches in length, and very perfect, which I found lying on the surface of the ground where a deep excavation had been made for the magazine. I could not learn positively that any metal remains had been preserved, though it was said that bits of bronze had been discovered, but I have

requested the resident officer of engineers to keep me informed of future discoveries.

"BEAUCHAMP WALKER, Colonel, A.Q.M. Gen."

No. 3. Colonel Beauchamp Walker to Professor Owen, F.R.S.

"Shorncliff, January 11th, 1865.

"DEAR SIR,—I have heard to-day from Lieut. Ardagh, who tells me that a pair of human thigh bones (he is told) were turned up about three feet below the surface a few days since, but he cannot trace them. The fact is there are about 250 civilian workmen in the fort, over whom we have control, and they make away with all they can conceal. The military superintendence is represented by one lieutenant and one sergeant of engineers.

"I hope, however, in a few days to be able to supply all you require, and also to furnish further information to the Anthropological Society, and if my duties here will permit me I shall pay another visit to Newhaven.

"I remain, dear sir, very faithfully yours,

"BEAUCHAMP WALKER, Colonel."

No. 4. Lieutenant Ardagh to C. Carter Blake.

"Royal Engineer Office, Newhaven Fort, Jan. 20th, 1865.

"SIR,—I have this day sent to Professor Owen a collection of bones, teeth, pottery, etc., which I made from the cliff at Newhaven, referred to in Colonel Beauchamp Walker's communication to you. As I have not much time at my disposal, I must refer you to the report which I forwarded to Professor Owen for a description of the remains. The sections, etc., which you desire are contained therein. It is impossible to say in what stratum the tusk which Colonel Walker sent to you was found, as it was thrown out by one of the navvies from a deep excavation. I have forwarded another perfect specimen which I found myself, with the pottery and other articles in the lower vegetable soil under the shell deposit.

"If you require further information I shall be happy to afford it whenever I have time at my disposal.

"I remain, yours very sincerely,

"C. Carter Blake, Esq.

"JOHN C. ARDAGH, Lieut. R.E."

No. 5. Lieutenant Ardagh, R.E., to Professor R. Owen, F.R.S.

"Royal Engineer Office, Newhaven Fort, Jan. 20th, 1865.

"SIR,—I have the honour to inform you that, in accordance with a wish expressed by Colonel Beauchamp Walker, C.B., I have made an examination of some recent deposits in this neighbourhood, of which you will find a description in the accompanying report; and that I have this day sent by rail, addressed to you, at the British Museum, a box containing the objects which I found.

"Should it be considered desirable to pursue the investigation on the spot, or to report on the similar objects contained in the museums of Lewes and Brighton, I will be happy to afford all the assistance in my power to forward an inquiry on the subject, which is one in which

I take a considerable interest. I should be much gratified by hearing your opinions ; and,

“ I have the honour to be your obedient servant,

“ JOHN C. ARDAGH, Lieut. R.E.

“ Professor Owen, F.R.S., etc., British Museum.”

Examination of the Upper Portion of the Cliff, and Remarks on objects discovered therein, 17th Jan. 1865. By Lieut. ARDAGH, R.E.

The cliff at Newhaven shows chalk to a height of about 100 feet above the sea level ; above that, plastic clay of variable character and thickness. As is usual on those parts of the coasts of Sussex and Kent where no artificial means have been applied to guard against the encroachments of the sea, a gradual destruction of the cliff by that element continues to take place, the simplest proof of which lies in the fact, that during the period 1849 to 1864 the chalk marks used by the coastguard to indicate the pathway along the cliff at night, were twice moved landwards in consequence of the slips of the cliff. The plastic clay is also acted on by land springs which melt away the lower part of this formation and cause a subsidence or rupture of the surface. In this way the sections of the more recent strata are for the most part fresh and well defined.

The Castle hill at Newhaven, before the introduction of artillery, was a very strong military position. A natural formation resembling the ruined parapet and ditch of an early encampment has evidently been taken advantage of and improved by art ; for the sections of the cuttings now being made for the ditch of a new fort lead at once to that conclusion. The space now enclosed by the trace of the ancient mound is long and narrow, but it must at one time have been large enough to enclose a considerable village. The greater part of the site has however long fallen a prey to the waves, and the cliff now presents a section not far from, and parallel to, the land front. In this section the search was made, and the position of the discoveries will be best understood by reference to the sketch which I have made to explain the formation of the ground.

It is notorious in this neighbourhood that remains of animals and traces of human agency are abundant on the site in question ; and I conclude that the Museum of the Sussex Archaeological Society at Lewes Castle, and that in the Pavilion at Brighton, probably contain a much better class of specimens than I have found in my short search.

Colonel Beauchamp Walker, however, suggested that it might be desirable to send some specimens to the British Museum, and to the Anthropological Society ; and as I am convinced that important discoveries are often buried in local museums, I concur with this suggestion, although I anticipate that the examination which I have made will throw no new light on the subject, as the specimens are so obviously recent as to belong to the historic age.

I expect, however, that in the course of the excavations for brick earth in the silt deposit of the River Ouse, some interesting discoveries may be made. Already a single bone, which I presume to be

one of the cervical vertebræ of a deer, has been discovered, and I have directed that all remains of whatever description should be carefully preserved. Half of a handmill or quern has been found in the excavations from the ditch. Not having been present at its discovery, I cannot give any information beyond that it lay within a few feet of the surface. In the section attached, the strata have been numbered for convenience of reference.

No. I is a vegetable mould of ordinary character, bound together by numbers of small roots, and containing *very few* remains, and those invariably in the lowest part.

No. II is composed of the shells of the common mussel, with large numbers of limpets, and less frequently oyster shells. It answers to the description of the shell deposits in the Danish "kitchen-middens" given by Lyell, to the best of my recollection. [I may here mention there exists on the side of the cliff at Milford Haven, on the west side of Angle Bay, a deposit principally of oyster shells, three or four feet in thickness, and now completely covered with surface soil. I observed this before Lyell's book was published, and have since had no opportunity of examining it. I can, however, refer to friends of mine in the neighbourhood and obtain further information if it is considered desirable.]

No. III is a vegetable soil, the organic parts of which have been more completely disintegrated and decomposed than No. I. In it occur bands of carbonised matter; flints broken in such a way as to lead one to suspect human agency; flints cracked by the action of heat; portions of clay more or less hardened or altered in colour, to bright reds and yellows, by the same cause; occasionally limpets and other shells; and nearly all the specimens which have been forwarded, including those of the most finished description of pottery which were found; so that for practical purposes all the specimens may be considered to have been found either in this stratum or in the shell bed which overlays it.

No. IV is formed of pebbles and flints partly waterworn; it is of irregular thickness, varying from three to twelve inches.

No. V is the common plastic clay, and is interspersed by layers of loam shingle and variegated sand, as is usual in that formation.

The length of the portion of the cliff which furnished the specimens forwarded is about one hundred yards, but there is reason to suppose that a search made at any point within the contour of the entrenchment would be equally successful, as the supply appeared to be independent of the position.

Description of Specimens.

Pottery.—First variety. Two fragments of excellent red pottery, with uniform smooth face, similar to some Etrurian vases.

Second variety. Red pottery of the same quality as ordinary flower pots.

Third variety. A black or dark grey pottery, occurring in very great abundance; some specimens well finished.

Fourth variety. A yellow or tawny-coloured description.

Metal.—1. Two pieces of decomposed copper, or brass ornaments or coins.

2. A piece of oxidised iron (this specimen is doubtful).

3. A piece of lead in the form of a hook.

Bones.—These must speak for themselves, as I can make no attempt to classify them.

Flints.—I have selected some flints from the same strata as the bones, in the possibility of their being considered to be evidence of human handicraft. For my own part I consider it to be highly improbable.

Shells.—A few limpets and oysters from No. II are sent, merely to show what state the rest are in. The mussels are so much decomposed that they do not bear handling, although the bright mauve colour of the enamel is still visible.

Note upon the Animal Remains. By C. CARTER BLAKE, F.G.S.

The animal remains all consist of the existing domesticated animals. Bones of the domestic pig (*Sus scrofa*) are very frequent; some of these, especially the long bones, have been split longitudinally to extract the marrow, and exposed to the action of fire. Some teeth and fragments of bone exist of the domestic ox (*Bos taurus*). These do not appear to have been burnt, although one of the bones has been split to extract the marrow. The proportions of the bones of ox indicate individuals slightly larger than most existing breeds. Some bones of goat (*Capra hircus*) are also found, one especially, the left parietal and portion of the occipital and parietal bones, which has evidently belonged to an individual whose skull has been cloven vertically by one chopping blow; this having, in my opinion, been performed by an instrument closely resembling the ordinary butcher's cleaver. I am enabled to publish the following correct list of the animal remains, through the kindness of my friend, Mr. William Davies, of the British Museum.

Last left lower molar of *Bos*; exoccipital and basioccipital bones, ditto; condyle of left lower mandible, ditto; fragment of left lower mandible, ditto; fragment of left lower mandible (angular piece), ditto; distal articular end of radius, ditto; head of femur, ditto; portion of lower end of right humerus (ditto); cervical vertebra, ditto. Part of left parietal of goat, *Capra hircus*. Antler of goat (young). Portion of pelvis (ilium) sheep, *Ovis aries*. Third cervical vertebra, sheep or goat (young); fragment of metacarpus, sheep or goat (young); fragment of metatarsus, sheep or goat (young). Glenoid process of hog, *Sus scrofa*; fragment of left lower jaw, ditto; symphysis of left lower jaw, with canine and first premolar, ditto; incisor of ditto; part of ulna of, ditto; portion of right side of pelvis of, ditto. Femur of dog, *Canis familiaris* (jun.); tibia of dog; fragment of pelvis of (?). Upper half of metacarpus of a bird.

The presence of these domesticated animals with fragments of Samian ware, although accompanied by evidences of a supposed rude type of flint implement, would not lead me to infer great antiquity for this deposit. The total depth of three feet three inches of super-

incumbent matter above the shingle bed is very significant, as indicating the rapidity with which the deposit has been formed.

Notes on the Roman Remains found at Newhaven. By WILLIAM TOPLEY, Esq., F.G.S., of the Geological Survey.

The South Downs generally are rich in Roman remains.* The Rev. F. Spurrell has already described some discovered in 1852 at Newhaven.† It may be interesting to compare his account with that given in the present paper. They were found "in an upland meadow on the estate of W. Elphick, Esq.," and consisted of "tiles, coins, bullock's horns and bones, *flints* calcined and discoloured by heat; pieces of several kinds of grey pottery, of Samian red ware, and of an amphora; an arrow-head of iron, and some dozen nails and iron fragments; bones (not human) charred, and fish-shells quite perfect, though soft, of the mussel, oyster, whelk, cockle, periwinkle, and limpet; and in the shells, and in patches everywhere, coal-ashes. Every piece of iron was much corroded, and the pottery much worn, and found only in fragments. These Roman fragments formed part of a refuse place, or ash-pit." The author does not give the exact locality of this "find." It is not stated that the *flints* were *worked* in any way; but it is worthy of note that roughly-chipped flints are frequently found with deposits of Roman age. They occur in the Newhaven Cliff section (bed 3), and have been described by Mr. W. Boyd Dawkins from Romano-British graves at Hardham, near Pulborough.‡ I have found numerous *flint-flakes* in a field at the Hermitage, two miles west of Maidstone. Roman remains are frequently discovered around this spot.

The investigation of Roman antiquities in the neighbourhood of Newhaven affords a special interest, because this place (amongst many others) has been claimed as the site of the ancient city of Anderida, which, however, is now generally fixed at Pevensey. Information is much required upon the *Roman roads* of this district. Stukeley§ thinks the Hermenstreet started from the channel at Newhaven and ran due north through London. Probably, however, it divided into two branches at London, one going south-west to Chichester, and the other passing east and south-east to Pevensey. It is thus marked on Dr. Guest's map of "The Four Roman Ways."||

It is probable that in Roman times Newhaven levels were covered by the sea.¶ Dr. Mantell has described sections of this alluvium. It is certainly of comparatively recent date. In later times the outlet of the Ouse was at Seaford, being separated from the sea by a bank of shingle. Newhaven was then called *Meeching*.

The PRESIDENT said that papers of that kind were of great use, as serving to keep men alive to the importance of facts. The Society

* See Horsfield's "Hist. of Sussex" (1835), vol. i, chap. 2; also Horsfield's "Lewes", vol. i, chaps. 3 and 4.

† Sussex Archæol. Collection, vol. v, p. 263.

‡ Ibid., vol. xvi (1864), p.

§ Itinerarium Curiosum (1724), p. 6.

|| Archæological Journal, vol. xiv (1851), p. 99.

¶ Horsfield's "Sussex" (1835), vol. i, p. 46.

wanted to keep on collecting facts. It was only by the collection of such facts they could hope to arrive at the solution of the problem of the history of the early inhabitants of this country. It was all the more satisfactory that the authors of the paper did not pretend to throw any light on the antiquity of man.

REV. DUNBAR HEATH inquired whether the stratum of marine shells had been deposited since the days of the Romans, and whether it was supposed that such an extensive midden had been found since the time of the manufacture of Samian ware. He could not understand how a stratum of marine shells should extend over so large an area at such height above the sea level.

MR. C. CARTER BLAKE stated that it was probable that in the Roman times the sea at Newhaven was at a higher level, relatively. There was no difficulty in accounting for the extension of the kitchen-midden horizontally, the difficulty was to account for the regular depth of the stratum.

MR. MACKENZIE thought it was desirable they should, in the first place, determine what was meant by the term "kitchenmidden." Did it mean, in fact, archæval dust holes? If so, it would be only right, in that Society—where they professed to call a spade "a spade," and not "an agricultural implement"—to say so. Those dust holes had not produced much as yet.

MR. HIGGINS contended that "midden" was a good old English word, and that the kitchen middens were heaps of refuse matter, and not holes.

MR. C. CARTER BLAKE, referring to the sections showing the position and extent of the kitchen-middens described in the paper, observed that their correctness was confirmed by two very good geologists, and he expressed surprise that Mr. Heath should have disputed the existence of such a deposit of so large an extent, and at such an elevation, as there were numerous other similar cases.

MR. SALMON agreed with Mr. Heath in thinking that there was a want of some satisfactory theory to account for the presence of shells and animal remains in such a position.

MR. EDWIN COLLINGWOOD expressed a similar opinion.

PROFESSOR MACDONALD observed that beds of shells were often found lying along the coast of great depth, and for a considerable extent. They might be the refuse of an encampment, or of a place of residence.

THE PRESIDENT hoped the discussion would do good in eliciting facts, for it was the duty of the Society to be sceptical, and not to receive any statement without careful examination.

On a Kjökkenmödding at Santos, Brazil. By Capt. R. F. BURTON,
V.P.A.S.L.

"British Consulate, Santos, Brazil, Dec. 11th, 1865.

"SIR,—I send by this mail a small box of stone implements, etc., lately found by me and others in various parts of Santos Bay. The fifty leagues of coast from Angra dos Rios to the Rio Conanen was

inhabited by the Goayana Indians, who bordered upon the Tameyo to the north and the Carejé to the south.

"The Goayana Indians were a domesticated tribe, they only enslaved instead of killing and eating their prisoners, and they were kind to the whites—thus Martius Affonse de Sousa found it easy to colonise in their lands. They never made war upon their neighbours outside their own limits, and they fought in the open 'Campos' or Brazilian Prairies, not in the bush. They had no plantations nor villages like the Tameyo; their dwelling-places were caves or holes in the ground, where they kept fires burning night and day, and their beds were the skins of wild beasts killed for food. This much we learn from the *Nova Orba Serassia Brasilica* of Fr. Antonio di Santa Marie, Talvatam, 1761.

"These 'Negroes,' as the people still call them, disappeared from the vicinity of Santos Bay shortly after 1532, when the Portuguese founded S. Vicente. It was their custom to accompany the wild beasts in their annual migrations from the highlands of the interior during the so-called winter—May to September—and *vice versa*. On the sea-board they seemed to live chiefly upon oysters and other shell-fish. They must have had certain camping grounds, generally amongst the mangroves, where crabs and different kinds of crustacea are common. They heaped up the empty shells in huge mounds, and in them buried their dead. The mounds are often apparently double, and separated by a small stream of fresh water, as if each subtribe or family had its own peculiar plan.

"Of these kjökken-möddings there are in Santos Bay about twenty, besides many down the coast at Iguapa, Cauanen, and their maritime haunts southwards. Some are of great size. On December 3rd, in company with Senor Juan Baptista da Silva Bueno, and Messrs. Glennie and Miller of this city, I visited a deposit in the 'Ilha de Casceiro,' to the north-west of Santos. It contains three mounds, one of which is about 200 feet high, and about 2800 feet each way. The oysters in question form a conglomeration (of which a specimen is forwarded) in blocks which reach a ton weight. They have supplied the country with lime for the last three centuries, and will yet last for a long time.

"Nos. 1 and 2 are from the brick grounds near Sta. Kita to the north of Santos Bay. They were given to me by M. Antonio José de Silva Campella. I am promised other specimens if you desire to receive them, and I am doing my best to procure for the Anthropological Society some skulls of this extinct race.

"I am, Sir, your obedient servant,

"RICHARD F. BURTON, V.P. Anthro. Soc.

"The Secretary A. S. London."

The PRESIDENT stated that the box containing the specimens referred to in the paper had not yet arrived.

On the Opening of a Tumulus at Essequibo. By the Rev. W. H. BRETT.

"To the Venerable Archdeacon Jones.

Trinity parish, Essequibo, Jan. 4, 1866.

"MY DEAR ARCHDEACON,—Having long entertained the opinion that the shell-mound standing on the precipitous edge of Waramuri sand-reef was of artificial formation (being either a tumulus of similar nature to the kitchen-middens of Denmark, and the shell-heaps recently examined, I believe, in Caithness, or an ancient sepulchral barrow), and finding few persons inclined to agree with me in either supposition, I resolved to settle the question by opening it.

"The tumulus, as you know, is not far from the bank of the Moruca, at the commencement of the immense swampy district inhabited by the Waraus and other Indian tribes, which extends northwestward to, and beyond, the delta of the Orinoco.

"The mound is rather more than twenty feet in its present height, gracefully rounded, and with a base of probably one hundred feet in diameter. The reef on which it stands is, like many others found a few miles inland, composed of white sand, mixed with peat or decayed vegetable matter; but, unlike the mound, is destitute of organic remains, as far as our researches have extended. The whole, both reef and tumulus, was covered with forest trees, until the establishment of the mission in 1845.

"Mr. Campbell, the resident catechist and lay reader, commenced operations, at my request, in the beginning of November, by a cutting from east to west of twenty feet in width at the top, to allow of gradual narrowing in the descent.

"The whole mass of the mound, as far as we have been able to dig, consists chiefly of black and whitestriped periwinkle-shells, similar to those found on the surface, with those of crabs, mussels, clams, whelks, etc., in infinite number and variety; the first named (*i.e.* the periwinkle) greatly exceeding all the rest in quantity. Mingled with these are the remains of vertebrate fishes and land animals: the whole presenting the appearance of being the refuse of innumerable meals of some race in former days, when these shell-fish (many kinds of which are now scarcely known on our muddy shores) must have abounded, and Waramuri ridge, now separated by ten or twelve miles of alluvial deposit from the sea, was probably a promontory or an island. The shells, imbedded in the light mould, are seen everywhere on each side of the cutting, in thin layers, which resemble in their closeness the coats of an onion, and indicate by slight streaks or varieties of colour where each successive deposit was spread forth.

"We were unable to go below seven or eight feet in depth. The Indians refused to dig deeper; being unwilling to disturb to any greater extent the *human remains*, which began to be met with about four or five feet from the surface. These bones were found in five or six places; not stretched out either in horizontal or perpendicular positions, but the remains of each person crushed and huddled together in a manner impossible to describe. A fragment of an elbow-

bone, for instance, is found tightly fixed between the spinal vertebræ, and many different parts are welded together, as it were, in the strangest confusion. I have brought away a small box of the most singular specimens of those human remains; also two or three specimens of (apparently) the bones of large fishes; two lumps of hardened red paint, or what the Indians call such; four or five heads of stone hatchets, or rather ancient tomahawks, which must have been inserted in handles of heavy wood; a broken stone with a sharp edge, which may have been used as a knife; and a strange rod, or petrification, of a substance heavier than the bones, which was unfortunately broken into four pieces in being dug up. This latter has puzzled all who have seen it. I think it may perhaps be the fossilised fragment of the tail of a gigantic ray; but leave it to others to decide on its nature. No beads nor any kind of ornament were found; neither gold, silver, copper, iron, nor any kind of metal. Small fragments of granite and other stones, such as children at play might throw about, were met with here and there.

"I may add here, that, since the above specimens were dug up, which I have forwarded to you, Mr. Campbell has sunk a small pit several feet deeper. He procured from it the same kind of shells, fish-bones, etc., as were found above; another shattered skull, and other human bones; and, among other little matters, five more lumps of the 'red paint', which he has sent me. The feeling among the Indians, of which I wrote, has compelled him to cease from further excavation.

"The finding of these last human remains so far below the others, and the irregular position and unequal depths at which *all* were found, seemed to show that they must have been placed there at different periods, while the mound was in course of formation.

"Having thus detailed the main facts of the discovery, I ought, perhaps, to make no further remark on the subject. But there is one question which naturally suggests itself, and which has been asked by all who have heard of the above facts or seen the relics:—'How came these human bones to be there buried in the heap of shells?'

"Judging merely from what we have at present discovered, it appears to me that two conjectures might be advanced in reply:—

"1. 'They may have been interred many ages *after* the tumulus had been formed; either immediately after death, or after long preservation of the skeleton above ground, according to the ancient custom known to have been practised by the Indian tribes now existing.'

"The latter supposition is strengthened by the lumps of red colouring matter found near them (for the Indians, when preserving skeletons of their relatives, often painted them red); and it would account for the disjointed condition, and perhaps for the intermingling, of the various parts of each skeleton. But it would hardly account for their irregular positions and depth in the mound, nor for their broken and shattered condition when found. The child's skull and jaw, you will see, have been smashed in by a violent blow, apparently on one side; and all the other skulls were in fragments, of which the few I have selected were the largest. The man's skull is about a quarter of an inch thick, yet it had been shivered like the rest. Many of the bones

were broken in the process of digging ; but the edges thus formed are light in colour, while the original fractures, which are far more numerous, have their edges dark, and are distinguished at a glance.

"2. 'The ichthyophagous race who formed that mound, may have had a cannibal feast occasionally, and placed the bones and fragments with their other refuse.'

"The Indians' tradition is, that the man-eating tribes always broke their victims' bones to extract the marrow ; and they are inclined to believe that those bones were fractured for that purpose. But none of them know anything of the history of the mound in question, or can throw any light on the subject. It was probably the work of no existing tribe, but of a race long since extinct.

"I merely throw out the above as suggestions, without presuming to decide. We must search deeper. The examination of the remaining portion of the tumulus, by his excellency the governor, will, I am persuaded, do much to render intelligible this, which seems the earliest chapter of the history of the human race in this part of Guiana.

"I venture to predict that similar remains will be found, if sought for in similar positions ; viz., some distance inland, where the alluvial deposits, our present swamps, join the rising lands, the original shores of the Atlantic.

"I remain, my dear Archdeacon,

"Faithfully yours,

"W. H. BRETT,

"*Superintendent of Indian Missions.*"

Thanks were voted to the authors of the papers, and the Meeting adjourned to the 5th of June.

JUNE 5TH, 1866.

DR. R. S. CHARNOCK, F.S.A., IN THE CHAIR.

The minutes of the previous meeting were read and confirmed.

The following new Fellows were announced as having been elected : Professor H. J. Castle, King's College, Strand ; Lepel Griffin, Grosvenor Hotel, S.W. ; George C. Thompson, Haswell Terrace, Cardiff ; W. S. Windham, Carlton Club, S.W.

The following list of presents were announced and thanks were voted for the same : Transactions of the Geological and Polytechnic Society of the West Riding (the Society) ; Transactions of the Leeds Philosophical Society (the Society) ; Transactions of the Vienna Imperial Academy (the Academy) ; E. Darwin, Zoonomia ; J. R. McCulloch, Geographical Dictionary ; Œuvres complètes de Bonnet ; Nichol, Handbook for Readers in the British Museum ; J. C. Prichard, Researches into the Physical History of Man ; Spiegel ü. Windischmann, Erän ; Windischmann, Zoroasterische Studien ; Schwarzenburg, Alexander v. Humboldt ; Atkins, Navy Surgeon ; Rev. S. Smith, Unity of the Human Species ; J. Grote, Exploratio Philosophica ; P. Camper, works of ; Boudin, Traité de Géographie et de Statistique medicale ;

Bulletins de la Société Ethnologique de Paris (T. Bendyshe, Esq.); Vancouver, Voyage autour le monde; G. A. Cavazzi di Montecuccolo, Istoria descrizione de Tre regni, Congo, Matiamba et Angola (J. W. Conrad Cox); G. Nicolucci, Sulla stirpe japigica (the Author); Worcester, Dictionary of the English Language; C. Knight, Cyclopædia of Geography; T. W. Atkinson, Travels in the Upper and Lower Amoor; T. W. Atkinson, Oriental and Western Siberia; Draper, Human Physiology; J. Haydn, Dictionary of Dates; Dr. Maury, Physical Geography of the Sea; A. H. Hassall, Adulterations Detected; A. Wynter, Curiosities of Civilisation; Lankester, Lectures on Food; the Stars and the Angels (S. E. Collingwood, Esq.); Journal of the Royal Institution of Cornwall (the Institution); cast showing Straton's system of measurement (John Fraser, Esq.); Ormerod, Geological Index; Black's General Atlas; Bernard, Cambridge Free Thought; Gray, Criticism of Darwin (J. Fred. Collingwood, Esq.); The Journal of the Royal Geographical Society (the Society); the Journal of the United Service Institution (the Institution); engraving of a cromlech structure at Tongatattoo (K. R. H. Mackenzie, Esq.)

Mr. MACKENZIE said, I beg to exhibit and present to the Society, as a contribution to archaic anthropology, an engraving of a coral rock structure from a drawing made by the late Mr. Philip Hervey, my uncle, on a visit made by him in company with the ill-fated Mr. Boyd (subsequently murdered in Polynesia) in 1849-50. This structure, which, to some extent, deserves the designation of cromlech, is situated on the south-east coast of the island of Tonga Taboo (lat. $20^{\circ} 40' S.$, long. $175^{\circ} 40' W.$) It stands alone on a remote coast-bound part of the island, without any other monument or ruin nearer it than the "Cyclopean" tombs of the Tuitongas, drawn in Cook's *Voyages*, as standing on a clear plain, but since his time have become surrounded by a dense jungle, and are only to be reached with difficulty. This monument stands removed from the tombs of the Tuitongas at least eight to nine miles. Not being prepared for the discovery of so remarkable an object in the course of a ramble, Mr. Hervey was unprovided with the means of making an exact measurement, but the following dimensions he stated to be not far from the truth; other visitors may be able, however, to correct these. Upper transverse stone, 24 feet long by rather more than 4 feet deep; uprights 16 feet high, on a depth of 8 feet to 9 feet 6 inches high from front to back. The material is the coral rock or coral reef of the neighbourhood, differing from all the other structures of the island, which are formed of stone imported from Wallis's Island, considerably to the north-west of Tonga. The mortice and fitting of the cross stone Mr. Hervey found to be done with as much care as the rough material admitted, and on the centre of it a small bowl (presumably for *cava*, the native drink) is scooped out. The building, it should be added, is not adjusted to any particular point of the compass. No historical traditions are connected with it, but it is supposed to be exceedingly ancient. The natives are able to point out the tombs of at least thirty Tuitengas, but nothing is known by them of the origin

of this. They shrug their shoulders, say that a great spirit laid its load down there, and that all the men in the island could not now put it up. An immense tree has grown up at one angle, clasping the corner in its body. Mr. Mackenzie concluded by referring to Mr. Prichard's paper, in the *Memoirs* of the Society (vol. i, p. 208), "On Viti and its Inhabitants", where Mr. Pritchard alludes to this cromlech under the name of "Haamoza-Maui", the burden of Maui, the spirit who had, according to local tradition, brought these stones from Bulotu.

A paper was then read :—

On the Headforms of the West of England, By JOHN BEDDOE, M.D., F.A.S.L. Abstract. [The paper will appear at length in the *Memoirs*.]

Dr. Beddoe, after apologising for his use of the indefinite, yet necessary term "Keltic," stated the object of the paper to be the application to the vexed subject of the Keltic headform of facts derived from the mensuration of the heads of natives of the south-western counties, and of Wales and Ireland. While contending against the prevailing error of attaching undue importance to questions of mere length and breadth, he showed that the prevailing type in all these districts in modern times was dolichocephalic, and applied the term Keltic to a certain type of headform, usually but not always long, and corresponding with the pear-shaped type of Dr. Daniel Wilson, which he (Dr. Beddoe) believed himself to have found in all, or almost all, those countries where the combination of light eyes with dark hair, etc., called by Dr. Barnard Davis "the Keltic eye," was extensively prevalent. He gave some of the data on which his views were based, and in conclusion endeavoured to meet the difficulties thrown in their way by the abundance of brachycephalic skulls in the British portion of the *Crania Britannica*.

Thanks were returned to the author of the paper on the motion of the Chairman.

Mr. MACKENZIE said the subject of the paper was one of the most interesting sections of anthropology, because it introduced them to anthropology in its living aspect. The investigations were made on living men, and their vital integuments were examined; therefore, the paper was of practical interest. At one time they saw nothing but skulls on the table, and their researches seemed to be limited to the examination of bones, but he hoped they should in future have more of living anthropology. Viewing the paper as an exemplification of that method of research, he thought it was eminently useful, as leading their inquiries in a right direction. Unless they were very cautious in their measurements all races might seem to be abnormal, and the paper he considered was of great value as showing how to go to work to make accurate measurements of skulls with the skin on them.

Mr. CONRAD COX asked for an explanation of that part of the paper in which the Silurian skull was stated to resemble the Basque

form of skull, and inquired in what respect they resembled. Prof. Broca had found the Basque skulls to be dolichocephalic, but differing from the dolichocephalic skulls found in the Paris cemeteries, in that these last had relatively greater frontal capacity than the Basque skulls. That was an important point, and if Dr. Beddoe's examinations went into that particular they would be very interesting.

Mr. C. CARTER BLAKE differed from Mr. Mackenzie respecting the value to be attached to osteology in the study of anthropology, and contended that the examination of skulls was an important branch of the science. He considered the paper as important and suggestive. It was an appropriate sequel to a former paper by the same author on "The Permanence of Type," and he had that evening stated many facts which bore out in detail the conclusions previously drawn. In the first part of the paper the author objected to the word *Kelt* as having no definite meaning, but it was a word that must be preserved until some better designation was found. After referring to, and quoting some special cases mentioned by Dr. Beddoe, Mr. Blake proceeded to notice the recent investigations in the barrows of the north, and the contradictions which they gave to the theory that long skulls were found in long barrows and short skulls in round barrows. It appeared that in long barrows short skulls were found, though it might be asserted that those skulls were those of slaves who had been buried at the same time as the chief for whose interment the barrow had been made, somewhat analogous to the mode of interment at Pachacamac. It remained to be seen how far the existing population of the north agreed with that of the west. Mr. Thomas Tate, jun., had discovered some churchyard skulls from Alnmouth of the existing population, and had found them to be intensely brachycephalic. It was difficult to fix points of measurement in the living skull, which rendered such measurements uncertain. That had been alluded to by Dr. Beddoe, and the glabella, which had been referred to as one of the points, was rendered fluctuating, by the precise points of measurements selected. This uncertainty in the points of measurement occasioned great confusion in the measurement of skulls. He dissented from the opinion of Retzius that the *receptaculum cerebelli* was small in Irish skulls; on the contrary, its size, so far as that could be inferred from that of the *probole*, was often very large. Mr. Blake exhibited the "Louth skull" as a proof of this. Mr. Blake, in conclusion, observed that Dr. Beddoe's paper contained many real facts for anthropologists to work on, but he trusted it would be a long time before they proceeded to generalise on such facts.

Mr. HIGGINS made some remarks on the importance of observations on living skulls, and he thought they were very much indebted to Dr. Beddoe for having taken his measurements from living heads. He wanted to know something more about the figures given as the cephalic index of the Swedes and from what part of Sweden those men measured had come, for the measurements did not agree with those taken in Sweden.

Dr. BEDDOE, in replying to the remarks on his paper, alluded to the greater difficulty of measuring a living head than a skull, and stated

that he generally commenced his measurements from the forehead, beginning with the prominence between the eyebrows. He agreed with Mr. Blake that they should not be hasty in drawing conclusions, and he admitted that the facts were as yet very scanty, but he hoped within a short time to be able to enlarge them greatly. With respect to the size of the *receptaculum cerebelli*, on which part of the paper Mr. Blake had made some remark, he said his impression was that in most cases it was small, though not in all. The breadth between the mastoid processes was sometimes very great in Keltic skulls. With regard to the measurements of Swedes, he observed that his measurements were not taken from skulls but from living heads of Swedish sailors in Bristol. They came from all parts of the coast of Sweden. There were thirty of them.

Report of Explorations conducted in the Kirkhead Cave at Ulverstone.

By J. P. MORRIS, F.A.S.L. Abstract. [The paper will appear at length in the *Memoirs*.]

The Kirkhead bone-cave is situated on the brow of a steep hill on the eastern shore of the promontory of Cartmel, and about 85 feet above high-water mark. So far as is known, its dimensions are—length, 40 feet; width, 20 feet; height from surface of deposit, 14, 9, and 7 feet, under three separate domes. The floor of the cavern consists of bones, earth, angular fragments of limestone, and water-worn pebbles of clay-slate, indiscriminately mixed. The principal objects of interest found were portions of human crania, especially of the frontal and parietal bones, human leg and arm bones, and vertebrae. A few inches below the surface was found a Roman coin of the Emperor Domitian; and, at a depth of about seven feet, a stone implement of a rude unground type, and a metatarsal bone of a pig, with an evenly bored circular hole drilled through it. This it was at first imagined had been an amulet. Professor Busk thought that it partially resembled the bone whistles found in the south of France. Two pointed bone implements were also found, and several fragments of rude unbaked pottery. Of the various animal remains met with, the most numerous are the goat, kid, pig, boar, fox, badger, two species of deer, *Cervus elaphus* and *C. capreolus*, and an immense quantity of bones of the wild goose. Of those of which only a few remains are met with, may be mentioned the *Mus rattus*, *Arvicola amphibius*, *Felis catus*, one posterior molar of the horse, two canines and a molar of the dog. The bottom of the cavern has not yet been reached, and several hundred tons of the superficial bone-earth yet require examining. Some time ago, in quarrying stone for an embankment, another bone-cave was discovered in a bluff limestone headland, called Cape's Head, on the western shore of the same peninsula of Cartmel. At the instance of his Grace the Duke of Devonshire, some portion of it was excavated; but the author was not aware of anything important having been found, except a few remains of the smaller *feræ naturæ*. Being in the neighbourhood in May last, he was induced to examine the place; and, on breaking a piece of stalagmite, he found several fragments of charcoal closely imbedded. This

evidence of the human occupancy of the cavern, led him to visit it again, upon which occasion he found a human humerus in the calcified mould and stalagmite adhering to the sides of the cave; he also found a badger's skull, containing one molar tooth. On a subsequent visit, he found a human malar bone, and several animal remains; and he had no doubt that many interesting objects might be found, should a thorough excavation be made. This cavern, at the present time, is 87 feet long, 15 feet broad, and about 10 feet high.

Mr. SALMON, who assisted Mr. Morris in the exploration of the cave, confirmed generally the statements in the paper. He said it was manifest to anyone who examined the cave, that the contents of the cavern could not have fallen into it from a hole on the top. During the exploration, they had removed about two hundred tons of earth; and the masses of stalagmite were so large, that it was necessary to blast them. He did not pretend to form any opinion as to the age to which the objects found belonged. In the same locality there were many similar caverns, and other records of ancient times; and, if it should be the opinion of the meeting that it was desirable further explorations should take place, it would encourage those who lived in the neighbourhood to persevere in their exertions to explore. He called attention to the flint flake imbedded in the stalagmite, for it was remarkable that there was no flint in the neighbourhood. In exploring the cave, they came upon a large deposit of sea-sand; which showed that the level of the sea must have changed, and that the sea at one time flowed into the cave.

Mr. HENRIQUES thought it was desirable to know the character of the roof of the cave, and its description generally. The position of the objects found should also be considered, as indications of their relative ages. The coin of Domitian found there, showed that one of the objects, at least, was not of great antiquity. The geological character of the cave and the form of the orifice were important, as affording some grounds on which to arrive at a proximate conclusion respecting the period when the various objects were deposited.

Mr. C. CARTER BLAKE remarked, in reference to the character of the supposed flint flake, that it was composed of silex, but he could not say whether it was flint or chert. He asked Mr. Salmon whether there were any deposits of flint in the neighbourhood?

Mr. SALMON replied that there were none.

Mr. BLAKE, in continuation, said that, among the bones found in the cave, there was said to be a fragment of a human fibula, but which was not really so. There was, indeed, not much to be said respecting the human remains. The portion of the skull discovered exhibited high cranial development, and was similar in general character to the skulls found in the graves of the bronze period in Durham. Mr. Thomas Wright, the distinguished antiquary, had looked over the remains now on the table; and he said there was nothing among them more remote than the Roman period, with the exception, probably, of the flint flake. The head was similar in pattern to those found in Italy. The bones were generally identical with those of the

animals now living in the district. There was not among them the bones of any domestic animal ; but he hoped it would not thence be inferred that they belonged to a period before the domestication of animals in Britain. The interest of the cave was greater in a geological and palæontological sense than in an anthropological one ; for the animal bones found in it were of more interest than the human bones.

Mr. MACKENZIE said that, if they looked to the peculiar way in which these objects were found in the cave, they must suppose that they got in both from a lateral entrance and from the top ; and it might be accidental that any of the works of man got there at all. His impression was altogether against attaching any value to the contents of these caves. They had not yet attained any scientific result from them, nor had they ascertained the period at which they were occupied ; and he thought it would be wise to pause before they drew any conclusions from them.

Mr. BOLLAERT said that, when chemical assistant in the Royal Institution, and having assisted the late Dr. Buckland, about 1822, in preparing some of the fossil bones from the Kirkdale caves, he attached considerable value to the objects found in the cave at Kirkhead. From the statement of Mr. Salmon, he was inclined to think that, if they were to dig deeper, they would come to larger masses of stalagmite, among which some other interesting relics might be found. He thought it was worthy of the Society's consideration, whether they should not give assistance for making further researches in the cave.

Mr. SALMON explained that they had already pierced through much stalagmite, of which there were three or four large deposits, but they were small compared with the quantity of earth excavated. The rock of the cave was limestone, and there were found within it a number of clay-slate pebbles, though there was no clay-slate in the immediate locality ; therefore they could not have got in from the top of the cave, but from its mouth. With respect to Mr. Wright's opinion as to the period to which the relics belonged, that gentleman, in a letter to Mr. Morris, excepted the piece of pottery from the rest, as he was doubtful whether it was Roman.

Mr. BLAKE added that Mr. Wright had since alluded to it, and said his doubts were whether it belonged to a British or to a late Roman period.

The meeting then adjourned to the 19th instant.

JUNE 19TH, 1866.

JAMES HUNT, ESQ., PH.D., F.S.A., F.R.S.L., PRESIDENT, IN THE CHAIR.

THE minutes of the preceding meeting were read and confirmed.

The names of the following gentlemen, who had been elected Fellows, were announced :—John Stirling, Esq., M.A., Langham Chambers, Portland Place ; Charles Rooke, Esq., M.D., F.G.S., Bellevue Cottage, Scarborough.

The presents received since the last meeting were announced as under:—Foster and Topley, Denudation of the Weald (W. Topley, Esq., F.G.S.); The British People (the Author); Nicolucci, Di un antiquo Cranio Fenicio (the Author); Purdon, Deaf and Dumb (T. Bendyshe, Esq.); George Tate, Esq., History of Alnwick (the Author); Thirteen Skulls from India (Dr. Shortt).

The PRESIDENT stated that resolutions had been agreed to by the Council, which would now be read, relative to the formation of branch societies in different towns in the provinces. He had much pleasure in seeing the President of one of the local branches—the Manchester Anthropological Society—present that evening.

The resolutions were then read, as follow:—

Regulations for the Formation of Branch Societies.

1. When ten gentlemen, Fellows of the Anthropological Society of London, residing in any town in the United Kingdom, or British possessions, express a desire in writing to form a Local Branch Society, it shall, on the formation of the same, be entitled to a diploma of recognition, with the consent of the London Council, subject to the following regulations.

2. Each Branch Society shall be governed by a President, a Vice-President, an Honorary Secretary, a Treasurer, and four ordinary members of Council, all to be Fellows of the Anthropological Society of London, the Local Secretary or Secretaries to be officers. Three to form a quorum.

3. The Officers and Council shall be elected annually; all members thereof, except one, to be eligible for re-election.

4. The Council of each Branch Society so formed shall be at liberty to elect such members or associates of the Branch Society as may be thought desirable, the subscription to be paid and the privileges to be received by such members to be regulated by special resolutions of each Branch Society; provided always that at least ten members of the Branch Society be Fellows of the Anthropological Society of London.

5. The voting shall be usually determined by show of hands, or by ballot if demanded by any member of the Council.

6. Two Ordinary Meetings, at the least, shall be held annually, at such times and places as may be arranged by the members of the Branch Society.

7. At the ordinary General and Annual Meeting, the business shall be conducted in the same manner as by the Anthropological Society of London.

8. Reports of the proceedings of each Branch Society shall be forwarded to the Anthropological Society of London, quarterly, half-yearly, or yearly.

9. Such Reports shall be submitted *pro formâ* to the Anthropological Society of London, at one of its ordinary meetings. The Reports, or abstracts thereof, shall be published, subject to the same regulations as those applicable to other communications submitted to the Society.

10. Books, specimens, diagrams, etc., shall be lent to the Branch Societies, on application by the Officers of each Branch Society to the Secretaries of the Anthropological Society of London, subject to special considerations in each case.

11. The Anthropological Society of London will undertake to defray such expenses as may be incurred by its Branch Societies, so long as they do not exceed 25 per cent. of the annual subscriptions received by it from the members of each Branch Society, who are also Fellows of the Anthropological Society of London.

The PRESIDENT observed that the formation of a branch society in Manchester was the first occasion on which an Anthropological Society had been formed in this country out of London; and they might take credit for having given rise to the Manchester society, which he hoped would be the forerunner of many others. The town of Manchester possessed greater opportunities of promoting the science of anthropology than any other out of London, in consequence of its connection with the colonies, and its means of studying the characters of various races of man. The practical business character of the people of Manchester would also be of great service in studying the science of anthropology, which requires that qualification in its promoters more than any other science. Manchester, he considered, was eminently qualified for the successful establishment of an Anthropological Society; and he hoped that, in pursuing their investigations, they would care only to arrive at the truth, wherever it might lead them.

Mr. GEORGE HARRIS said he felt highly gratified at the reception they had given him, and he responded to the sentiment that the Anthropological Society of Manchester would prove an important one. The connection of the town with the colonies, as also with Germany, and the character of the inhabitants, induced him to have great confidence in the success of the society. The people of Manchester had a great taste for natural history, which was evinced by the fact that they had a collection of objects of natural history which was the best out of London. Some opposition had, indeed, been expressed to the formation of the society, but he hoped it would soon be removed, and that the Manchester Anthropological Society would become important and influential. Several of the large towns round Manchester would probably unite with them. They would be much encouraged in their efforts by the great progress which had been made in so short a time by the parent Society.

Dr. CAPLIN said that in no town was the interest taken in science so great as in Manchester; and he had no doubt that the branch society there would meet with very great success.

Mr. LAMPRAY expressed great disappointment at the sudden and unexpected stoppage of the supply of the *Reader* newspaper to the members; and he desired to know what had occasioned the failure of the arrangement for supplying it.

The PRESIDENT, in explanation, stated that the *Reader* had been taken simply with the view of advertising more extensively the series of works issued by the Society. The proprietors of the *Reader* ex-

pressed themselves willing to supply a copy of their paper to every member of the Society on the condition of receiving weekly an advertisement of a page. It was merely a question of advertising, and it had not been found to promote the sale of the works to the extent that was anticipated. It had been attended with the expense of £6 a week; which, under the circumstances, the Council did not feel justified in continuing.

The President then resigned the Chair to Dr. CHARNOCK, and read the following paper:—

Observations on the Influence of Peat in Destroying the Human Body, as shown by the discovery of Human Remains buried in Peat in the Zetland Islands.. By Dr. JAMES HUNT. Abstract. [The paper will appear at length in the *Memoirs*.]

During the late explorations in Zetland, undertaken for the Anthropological Society, Dr. Hunt discovered a series of wooden coffins in the neighbourhood of a tumulus, which coffins were buried in the peat. One of these coffins was covered by two stones, which bore certain markings, twelve inches of peat, however, intervening between the coffin and the stone. In the majority of these coffins, all traces of the skeletons buried therein had entirely disappeared; from one, however, was obtained a human finger-nail, and from another a skeleton of large size, the integuments of which were preserved, and the bones impregnated with a black peaty substance. In this coffin was found a liquid having the odour of tannin. Dr. Hunt gave an account of the facts which had been previously published regarding the preservation or destruction of human remains by peat; at the same time that he declined to theorise respecting the conditions which had led to the destruction of many skeletons, and the preservation of the one he then exhibited.

Mr. BOLLAERT mentioned instances in which bodies that had been exposed to the action of a current of water had become dissolved; but at the bottom of the coffins masses of fatty matter were found.

Mr. G. HARRIS made some observations on the best mode of preserving bodies, and the peculiar adaptation of certain kinds of earth for this purpose. He then mentioned the discovery of a number of Roman skeletons some years ago, near the ancient Watling Street road, running between Warwickshire and Leicestershire, which had been buried in gravel, and were in an extraordinary state of preservation. He adverted also to the discovery at Bonn of natural mummies, that had been buried in stone coffins; the flesh, though dried up, still remained on the bones. He alluded as well to the long preservation, in the convent of Mont St. Bernard, of bodies that had been found in the snow, as an instance of the resistance to decay offered by cold; also to the coffins of Charles I. and of John Hampden, on the opening of which the bodies were found remarkably well preserved. Dryness and the total exclusion of the air appeared, in these cases, to have been the main preservative causes.

Mr. TATE observed that there was no question about the great pre-

servative power of ice, for it was evidenced by the preservation of the flesh of extinct mammoths; but as to peat it was a different matter, and the observations of Dr. Hunt showed that there were conditions in which peat was not preservative. In Ireland there was generally clay underlying the peat, and then brushwood, and on that the remains of the *Cervus megaceros*, the old Irish deer, were found. The bones thus found were imbedded in peat that was saturated with moisture, and with any fluid matter that might be destructive of animal remains. The question seemed to be one for chemists to decide—whether there is any acid in peat that would destroy animal substance? A wet mass of ordinary peat was well known to be preservative. Thus in the Shetland Islands, the body of a person who had been buried in peat for sixty years, had been dug up, and found to be in a good state of preservation; the peat in that case being very moist. He doubted much whether the coffins in which the human remains were found by Dr. Hunt were of the same date as the bones. Peat-bogs were generally preservative.

Mr. C. CARTER BLAKE, in reference to the remarks of Mr. Tate, asked what was the character of the clay deposit above which the bones of the supposed *Cervus megaceros* had been discovered? He believed it did not belong to any definite age, and that it was not a stag. In the case before them, they had a skull and certain long bones of an individual of great size. The skull afforded some peculiarities. It had evidently been for a long time beneath the earth, and bore marks of posthumous compression, which had altered the normal symmetry of the skull. There were also certain conditions observable in the teeth. It evidently belonged to a short-headed race, and was eight-tenths of a hundred in cranial diameter. If the individual could have been proved to be Scandinavian, he should doubt whether they were a long-headed race, for that was a very short skull. He had also seen Northumbrian skulls, which were supposed to be Scandinavian, and were short; and he was inclined to doubt the popular theory, according to which the Scandinavians were universally a long-headed race. With respect to the geology of the north of Ireland and of the Shetland Islands, there was no resemblance between them; and they were in want of facts respecting the peculiarities of peat in different localities.

The Rev. DUNBAR HEATH suggested that the remains of clothing found in the coffin should be microscopically examined, and by that means the nationality of the sailors supposed to have been buried might probably be traced. It was well known that the decomposition of human flesh depends on the action of oxygen and the temperature; but he did not see the anthropological bearing of that part of the paper. It was evident that the individuals had been buried in woollen clothes, and it might be curious to ascertain what was the state of bodies when exposed for a length of time to certain conditions, but the paper conveyed no idea of the period at which they had been buried, nor of their nationality; and these he considered were the whole points of interest in the subject.

Mr. MACKENZIE observed that some evidence as to the age of the

bodies might be obtained from the stitches in the clothes, which were distinctly to be seen. He thought that some fuller description was required of the other coffins, besides the one in which the bones were found. From the circumstance of their being placed irregularly, he considered that the place had not been a regular burying ground.

Mr. NAPIER alluded to the discovery of several skeletons in Stirlingshire, about thirty years ago, that were buried in peat, and were associated with bronze celts and other bronze implements. The skulls were long, and not those of short-headed individuals. With regard to the length of Scandinavian skulls, he stated that the heads of most of those he had measured were of a medium kind, neither long nor short; the measurements being about seven inches and a half long, and from five inches and seven-eighths to six inches and a quarter wide.

Dr. CAPLIN referred to some instances of the preservation of human bodies in France, especially to that of Henry IV, which was found in a perfect condition when the coffin was opened, sixty years after his death.

Mr. HIGGINS considered the investigation of the influence of peat in preserving or destroying human bodies was decidedly an anthropological question. They had the fact stated of the disappearance of human remains from most of the coffins; and it was important they should investigate the cause of their destruction, as it might throw a light on the evidences of the antiquity of man. From the remains of the clothing, it might be assumed that they belonged to the present century. The disappearance of human remains, he thought, depends much on the motion of water, and that, if the water with which bodies are in contact is stagnant, it will tend to preserve them.

Mr. NAPIER said that his observation of Scandinavian heads was confined to the examination of the heads of Swedish seamen in Bristol, the smallest of which were about seven inches long, and the breadth five inches and six-eighths. He had measured the skulls of twenty Scandinavians, obtained from those portions of that country where the inhabitants were clearly of Scandinavian origin.

Dr. CHARNOCK said that the property of peat to preserve human remains might depend upon the variety of peat in which they were found. He believed that common peat was a composition of the branches, twigs, leaves, roots of trees, etc., and that it might have the property in question from containing tannin. There was, however, another sort of peat, found in Scotland, Germany, and Holland, called "Scottish or German peat", a substance of a yellowish-brown or black colour, which consisted of clay mixed with calcareous earth and pyrites; and it was possible that this variety might not have a preservative property.

Mr. CARTER BLAKE said he should like to know what was the modulus of the transverse breadth of Scandinavian skulls according to Mr. Napier's theory. First he had stated that it was five inches and a half, next six inches and six-eighths, then six inches and one-eighth, and lastly five inches and six-eighths.

Mr. R. TATE. Order!

The PRESIDENT, in reply to the observations on his paper, said his

object had been simply to communicate a fact, the observation of which he believed was unique, that there is a destroying power in some kinds of peat on the human body. In all previous cases, peat had been considered a preservative. In this case, however, there were the remains of a human body found in a coffin among other similar ones which contained nothing, and respecting which the opinion prevailed that they were chests wherein treasure had been buried; and it was not until they had opened several, that they had found a single trace of a human body. As soon, however, as Dr. Hamilton found a finger-nail in one of them, he gave up his theory that the coffins were merely chests. It was a subject of the greatest interest to know where human bodies were to be found. In one case, a man had been buried, but not a trace of a skeleton was to be found; yet an impression of his face remained when all the integuments of the human body were gone. Vegetable substances, which had been buried at the same time, were as fresh as at the present day. All the coffins were found near each other, and within a few inches only of difference in their levels, there are great varieties of peat, varying in quality with the vegetable substances of which they are composed. He hoped that the paper would prove that in some cases, at least, bodies that had been buried perhaps only thirty years had disappeared.

The PRESIDENT then read the following paper, which was a sequel to the foregoing one :—

On the Interpretation of some Inscriptions on Stones recently discovered in the Island of Brassay, Zetland. By Dr. JAMES HUNT. Abstract. [The paper will appear in the *Memoirs*.]

The stones mentioned in the above paper were described by Dr. Hunt. The markings thereon were considered by Dr. Charlton, of Newcastle, to be, one a compound rune, spelling the letters TNYR, the other an Ogham letter B. Principal Barclay, of the University of Glasgow, considered them combined runes, each spelling the word Teit or Tait. Professor Stephens, of Copenhagen, considered them not to be runes, but "runic bo-marks," monograms, or masons' marks, one of the characters possibly representing an anchor. Dr. George Moore, of Hastings, considered them monograms formed of Runic characters united, the signification being in each case Danr or Dany. Dr. Pruner-Bey, of Paris, interpreting them as Phœnician, read one of them as *siz* (town) or *sous* (horse). Dr. R. S. Charnock considered one to spell *dad* or *tat*, and the other *dadda* or *tatta*. The specimens will be deposited in the Museum of Scottish Antiquaries.

The thanks of the meeting were voted to the President for his two communications.

Dr. CAPLIN asked what name would be denoted if the inscriptions were reversed?

Dr. CHARNOCK: They would have no meaning at all.

Mr. MACKENZIE adverted to the interpretations by the members of the "Pickwick Club" of the mysterious-looking inscription on a stone submitted to them, and he compared the various interpretations of the meaning of the marks on the stones over the coffins which had

been rendered by the gentlemen to whom they had been shown, to the ingenious interpretations given by the members of the "Pickwick Club" to the imperfect cutting in stone of "John Snooks, his mark."

The Rev. DUNBAR HEATH thought the matter to be of considerable interest and importance. With respect to the differences between the letters T and D, he could well understand that they might be mistaken one for the other. It would seem probable that the marks denoted the name of the man buried, and it was a fact of interest that the Runes were formerly in that part of Scotland.

The PRESIDENT stated that the second paper originally formed part of the first one, but he had subsequently divided it into two, and he was glad that Mr. Heath found the latter part of the paper at least to be interesting. If the characters were Runic, he must say that he did not find anything like them in Maes-how, and that nothing Runic had been found in Shetland before.

On the Resemblance of Inscriptions found on Ancient British Rocks with those of Central America. By Dr. BERTHOLD SEEMANN.

Abstract. [The paper will appear at length in the *Memoirs*.]

Referring to the discoveries which had been made in Northumberland and on the Eastern borders, and which had been described by Mr. George Tate in his work on the subject, and after giving an abstract of Mr. Tate's views, the author pointed out that thousands of miles away, in a remote corner of tropical America, we find the concentric rings, and several others of the most typical characters engraved on the British rocks. These he had himself discovered, and had more than once described. He considered them to resemble Mr. Tate's specimens so closely, that when the plates of that gentleman's work were first shown to him (and he was quite ignorant to what country they related), he fully believed them to represent Veraguas inscriptions. He gave five examples of Veraguas markings, each of which he considered resembled a corresponding figure in the British inscriptions. Both were incised on large stones, the surface of which had not previously undergone any smoothing process. The people who were found in the district, probably the Dorachos or Dorazques, had also made considerable progress in sculpturing columns, and placing on them raised characters. But as these required far more artistic skill than incised characters, and denoted a higher degree of civilisation, Dr. Seemann considered that the incised characters were by a different, less civilised, and more ancient race than those who sculptured the characters in relief. After describing the famous *piedra pintal*, near the town of David, the author concluded by pointing out that could identity be established between the rocks of Britain and Veraguas, the legitimate speculation might be indulged in, that in prehistoric times connection existed between Europe and America, when the island of Atlantis—in the hands of modern science no longer a myth—intimately connected both.

The thanks of the meeting were given to Dr. Seemann for his paper.

Mr. BOLLAERT observed that he did not see any resemblance be-

tween the British characters marked on the stones and those of Veraguas. Between the first ones there was no trace of resemblance whatever; the second were equally unlike; the concentric circles of the third were a form of cutting to be found all over the world; and, as to the fourth, he was surprised that Dr. Seemann should have tried to advocate a resemblance, for it was purely figurative. He was sorry that Dr. Seemann should have alluded to the ancient romance about the connection between the Old World and the New. For his own part, he had failed to trace the least resemblance between them, for everything there was peculiar to the New World and to the red man.

Major OWEN was of opinion that, if they found the same things in the Old and New World, represented by similar characters, it was evidence of former connection.

Mr. MACKENZIE concurred with Mr. Bollaert in thinking that the red man was the creator of his own state of civilisation.

Mr. HARRIS conceived that the similarity of traditions in India and South America indicated that there had been some connection between the Old World and the New. He mentioned that there exists in Brittany many perfect ancient sculptures and inscriptions. A great number of them had been destroyed by the missionaries, who considered them as relics of paganism; but in an island near one part of Brittany, which is very difficult of access, and which the missionaries had not visited, there is a perfect Druidical temple, and many curious sculptures. The inscriptions on the stones were very remarkable, and well deserved examination. He considered Brittany to be one of the most interesting countries on the continent, though seldom visited.

Mr. RALPH TATE said that Dr. Seemann might be right after all, and the people of the Old and New World might be identical.

The Rev. DUNBAR HEATH agreed with Mr. Bollaert in thinking that there was no resemblance between the inscribed stones of the north of England and those figured by Dr. Seemann.

The following paper by Dr. Bower was taken as read:—

On the History of Ancient Slavery. By Dr. JOHN BOWER. (Communicated by Mr. W. Bollaert.) Abstract. [The paper will appear at length in the *Memoirs*.]

In a paper of great length, the author described the circumstances under which slavery was practised among nations of antiquity—under the Hebrew, Greek, and Roman polity. He gave copious extracts from ancient authors, and entered into detail respecting the legal rights of slaves and masters, the clothing, food, and social life of slaves and freemen, and the terms used to discriminate between the various descriptions of emancipated slaves.

The PRESIDENT, having resumed the Chair, said there was one other paper on the list, "On the Influence of Blood-Relationship in Marriage", by Dr. A. Mitchell. It was a very valuable paper, and would be printed in the Society's *Memoirs* at length, and a discussion on it would take place at some future meeting. They had now arrived at the end of the session, and he wished to announce that the Council had decided to form a special fund for the purpose of carrying on original researches in archaic anthropology, under the title of the

"Anthropological Exploration Fund". In Orkney, the local Secretary, Mr. G. Petrie, whose report on the Brochs and Picts' houses of that locality was recently laid before the Society, intends to continue his investigations should funds be provided for him. In Caithness, the interest which has recently attached to the examination of the *bond fide* prehistoric remains for that country is unabated; and Mr. J. Anderson, local Secretary of the Anthropological Society of London, and Mr. R. I. Shearer, only wait for funds to continue the investigations which they commenced some time ago. In Dorsetshire there exists a large number of barrows which have never yet been examined, and it was proposed to devote a portion of the fund to that purpose. It was thought to be very advisable that the theories which have recently been promulgated respecting "long barrows" should be put to the test by an examination of some of the well preserved "long barrows" which exist in this country. The authorities in Belgium, who act under the orders of the Belgian government, have invited some members of the Anthropological Society to take part in the important explorations near Dinant, where bone-caves have been opened, containing remains of extinct animals, chipped flints, and human skulls and bones, of varied and peculiar nature. The Council were anxious, in the first place, to depute Mr. C. Carter Blake to make a report on this subject. The Society had given £100 for promoting these objects; several members had contributed individually to the fund; and by appealing to the public, and by the aid of other scientific societies, he hoped that a sufficient sum would be raised to complete the proposed investigations satisfactorily. He had only further to announce that he had undertaken to direct the application of the fund, and he should be happy to afford any information respecting the nature of the researches to be undertaken. A new volume of their *Memoirs* had been printed, with the exception of two papers, and it would be shortly issued to the members. A catalogue of the books in the library, and a list of the specimens in the museum, were also nearly ready; and he thought it would surprise some of their members to see what a valuable collection they had amassed in so short a time. The President further remarked, that a deputation from the parent Society would be present at the opening of the Anthropological Society of Manchester, of which Dr. Fairbank was secretary; and he looked with great interest to their future success. In conclusion, the President said that he much regretted the non-arrival of Mr. Pritchard's report as to the anthropological causes of the negro insurrection in Jamaica; but he had little doubt that, when presented, it would be read with greater satisfaction than the report of the Commissioners sent by the Government.

The meeting then adjourned to the 6th November next.

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INTRODUCTION.

ONE of the most interesting phenomena connected with the intellectual development of the present century is the birth and rapid growth of Anthropology, or the science of mankind.

Like most of the older sciences, Anthropology has had to fight against *à priori* teaching; the battle has been sharp, but inductive science threatens to become victorious. In Europe, Anthropology is now accepted as a science of the highest importance, and the chief governments have accorded to it privileges which are denied to some older sciences. During the past year, a great mark of respect and appreciation has been paid to the Anthropological Society of Paris by the enlightened government of the Emperor of the French. An Imperial decree was issued in which this Society was pronounced to be *une institution d'utilité publique*, and, thus entitled, it is to take rank with the oldest scientific societies in France. The development of this Society has been more rapid than that of any other ever established in that country.

In Germany, the first number of a periodical is about to appear specially devoted to Anthropological Science, and societies for its study and development are being formed in Spain, in Italy, and in Russia.

In England, Anthropology was unheard of as a methodically pursued science until about two years after the establishment of the French Society. No sooner, however, was Anthropology introduced, than it at once took both a deep and a firm root in English soil, and London can now boast of the largest society in the world for the study of this science. It is true that the progress of this society has been watched with some suspicion, if not jealousy, by those who should have aided it. There are men living who have fought for the introduction of geological science, and they were expected to aid in removing the popular objections of studying man by the same scientific methods as are applied to any other object in nature. This expectation has not, however, been verified. Opposition has come from unexpected quarters, but it has not at all affected the progress and development of the

science. There are persons who appear to be wilfully blind as to what is going on in Europe with regard to anthropological science. Some refuse to believe that a veritable science of man has already taken both a deep and firm root in this country. Others, having already had a glimmer of its vast extent and importance, are earnestly seeking for further information. There are also those who believe that anthropology is essentially a practical science, and that the diffusion of the results of anthropological research are eminently calculated to benefit all classes of society, and all races of man.

The object of our present undertaking is to endeavour to keep pace with the rapid development of the science, and to supply to the masses of the reading public an account of some of the more important discoveries in anthropology. We belong to that class of anthropologists who believe that there is an urgent demand at this time for a more general diffusion of the facts at present known with regard to the science of man. We propose to perform a function as regards anthropology which is not undertaken by any scientific body or by any periodical.

Professor Agassiz, one of the most eminent students of Natural History, has recently declared,* "that the man of science who follows his studies into their application is false to his calling." We hold, on the contrary, the very reverse. We consider that it is alone the man of science who is able to explain the full and true application of the laws he has discovered. Be this however as it may, it will be the duty of this Magazine to afford every facility for the discussion of the best means of adapting the deductions of science to all questions connected with mankind. If it is not the duty of scientific men to do this, then there is an absolute necessity for the present work. Our sphere will be a humble one. We shall simply endeavour to record and to disseminate the conclusions of men of science. Our desire will be to increase the number of those who now take an interest in this science, and to effect practical good by the diffusion of facts, whatever they may be. We have no desire or intention of entering into any discussion of the different theories of the origin of man. We shall leave such discussions to those who feel it their duty, or whose taste may lead them to enter the arena of controversy. We shall be content to take the different races of man as they exist, and to interpret all that is known about them; in all cases giving preference to questions which shall assist to diffuse practical Anthropology.

Our contemporary the *Anthropological Review* recently expressed regret that anthropologists do not possess a text-book. This cry of regret has been taken up by others;† but on this point we differ most entirely. We hold, on the contrary, that it is a most fortunate circumstance that there is no recognised anthropological text-book. Nothing could do more to impede the progress and development of the science of man than the publication of a text-book, which should be raised into the dignity of an authority. Every day new facts are coming to light, and these must raise the structure of the great science

* *Methods of Study of Natural History*, p. 24.

† *Pall Mall Gazette*, October 20, 1865, and *Ethnological Journal*, Nov. 1865.

of anthropology. There are men living who would like to arrogate to themselves a dogmatic position on all these questions; but the public, fortunately, take no heed of them.

The influence of the progress of scientific enquiry on the public mind is becoming very vast. Men's intellects are becoming broader; and those who, a few years ago, would have dreaded the application of the ordinary methods of research to all questions connected with the past and present state of man, are now heartily aiding in working out such problems. We are deeply impressed with the vast extent and value of the science. We have undertaken our duty with no light sense of responsibility. On the one hand, there are large numbers of scientific men who would like to confine science to a few, and by shrouding it with technical phraseology desire to make it repulsive to all non-scientific men. Other men of science have so little confidence in their own teaching, that they would put obstacles in the way of any attempt to popularise or diffuse the results of scientific inquiry. We entirely dissent from this. We look upon the diffusion of all real science as an unmixed good to every class of society. We contend that the study of Anthropology tends to raise the mind from the debasing habits of thought so prevalent amongst a great mass of society. We believe that its more general study will materially assist in the emancipation of the human mind from the shackles of preconceived notions; but we especially claim for Anthropology the power of assisting all races of man to material prosperity and happiness.

We are very far from asserting that the exact relation which one race of man should hold to another has been demonstrated. On the contrary, we know that we have much to learn on this momentous question. Facts, however, are already known which have a material bearing on this point, and it is time that such facts were made widely known.

It will be our duty to publish all facts bearing on such questions as those put by the President of the Anthropological Society of London two years ago to the Fellows of that Society.* "It is frequently the habit of scientific men to exaggerate the importance of their own special study to the detriment of other branches of knowledge; but do I exaggerate when I say that the fate of nations depends on the true appreciation of the science of anthropology? Are the causes which have overthrown the greatest of nations not to be resolved by the laws regulating the intermixture of the races of man? Does not the success of our colonisation depend on the correct application of the deductions of our science? Is not the composition of harmonic nations entirely a question of race?"

The President of the Paris Anthropological Society has just asked the following questions:†—

"Are not the most exciting and vitally important questions brought to light by the true position assigned to the study of mankind? Is

* *Anthropological Review and Journal of the Anthropological Society of London*, vol. ii, p. xciii.

† See extract of a letter from Dr. Pruner Bey, published in "*Anthropology and the British Association*", 1866.

there longer any doubt to be entertained that, in the large circle of terrestrial science this has to be acknowledged as the science of sciences? Is not even the public mind preoccupied with what may be the next result of the labours of the anthropologist? And is there now any country left in Europe where anthropology has not its warm partisans, its undepressed students?"

These are but a few of the many questions which await solution by the students of anthropological science. Many of the most important questions in the Science of Anthropology have never yet even been made known to the public. To what extent can the different races of man be civilised? Do some races possess the power of self civilisation? What races have this power? It will be our duty to diffuse all that is at present known on such points.

It has recently been urged that an attempt to popularise anthropology by lectures can do no good, but rather harm.* But the same objection which can be urged against popularising anthropology can be urged with equal force and truth against the public teaching of any natural science.

It has also now become the fashion to speak of Anthropology as an entirely unformed science. This is true, but it does not express the whole truth. All natural sciences at present are more or less in an undeveloped state, and any objection to an attempt to popularize the science of Man would apply alike to Geology, Zoology, or Botany.

Anthropology only differs from other branches of Natural science by being far more important, and having far more practical bearing on subjects of a social character. These questions are not confined to one country or people, they affect mankind as a whole, and every separate family, race, or tribe of which it is composed.

Nor is it advisable that the public should be kept ignorant of the progress of a comparatively new science. On the contrary, all true friends of humanity and of real progress will heartily join in the great work, and must naturally watch every step in its development with interest and satisfaction.

Many of the recent sufferings of mankind, and especially of the uncivilised races, have arisen from a want of a more general diffusion amongst the public of the facts which are already known to scientific men.

Mr. John Stuart Mill has recently well observed,† "It is, without doubt, the necessary condition of mankind to receive most of their opinions on the authority of those who have specially studied the matters to which they relate. The wisest can act on no other rule on subjects with which they are not themselves thoroughly conversant; and the mass of mankind have always done the like on all the great subjects of thought and conduct, acting with implicit confidence on opinions of which they did not know and were often incapable of understanding the grounds, but on which as long as their natural guides were unanimous they fully relied, growing uncertain and sceptical only when these became divided, and teachers who, as

* Pall Mall Gazette, October 20, 1865, and Ethnological Journal, Nov. 1865.

† Comte and Positivism, Trübner and Co., 1865, p. 96.

far as they could judge, were equally competent, professed contradictory opinions. Any doctrines which come recommended by the nearly universal verdict of instructed minds will no doubt continue to be, as they have hitherto been, accepted without misgiving by the rest."

We hold it to be right that the public should be kept informed of those points in which scientific men are agreed. We contend, too, that the questions involved in the science of Anthropology are of such magnitude and importance that the greatest publicity should be given to every step in this scientific inquiry. Every fact should be verified by as many persons, and as often as practicable; and every theory should be investigated and discussed by as large a number as possible of those who are at all qualified to undertake this duty.

Many branches of natural science have been studied without every step in their development having been made sufficiently public: and hence it is we have continual complaints at the present day against some scientific deductions in such sciences as geology, which a few years ago were accepted without any question. We cordially agree with Mr. Mill, that it is both advisable and necessary that mankind should accept the conclusions of those who have specially studied the subject. But if a veritable science of man is to be developed, it becomes necessary that the errors into which some of the older sciences have fallen should be avoided. Nor do we think it right that any corporate body, or any set of men, should put forward their views without an opportunity being afforded for a fuller discussion than is possible in any existing periodical devoted to this subject. On all these grounds, we ask for a favourable reception of our work from all lovers of truth.

We hope to discharge our duties in such a manner as shall effectually bridge over the gulf which has been created between the anthropological student and the masses of the educated public. We shall do this by allowing all shades of opinions to have a fair and full representation, as we believe it is by such discussion alone that a satisfactory Science of Man can be established.

ANTHROPOLOGY A PRACTICAL SCIENCE

THE purport of the following remarks will be to show that anthropology, independently of its scientific interest and importance, may and should become an applied science, aiding in the solution of the painful problems which human society and modern civilisation proffer, and tending to the bettering of the condition of man in the aggregate all over the world.

Had anthropology been studied with that ardour now shown by the societies in Paris, London, and Spain, some half a century ago, we should probably not have witnessed and deplored the horrors of an Indian mutiny—a New Zealand war—a Jamaica insurrection. A better knowledge of anthropology might have prevented such a juncture as that presented by the spectacle of a semi-civilised Abyssinian monarch paralysing the energies of the British Empire, and retaining in his ruthless and despicable grasp such men as Captain Cameron and his companions. Again, we hear from Queensland and other colonies of the extermination of aboriginal populations by the hands of the settlers, ignorant of the natural cause of the passing away of savage races, and urgent only for wilful cruelty towards these unhappy denizens of the Australian Continent. Anthropological science, like all sciences, is passionless on the point, but a better knowledge of its deductions and principles would have instilled some feeling of prudence and pity into the murderers, who seem to revel in the unnatural process of extinction.

If we turn to the great continent of Africa, which, by the energy of Livingstone, Burton, Speke and Grant, Baker, and many others, is becoming so well known as to be no longer the land of horror and mystery, if we look at the social processes at work there the necessity of a practical application of anthropological methods becomes evident. The theory which has exalted the negro and has found such favour among philanthropists whose knowledge of anthropological science is limited to the merest rudiments, has had a fatal effect upon the very race it was intended to aid. The negro's true place cannot be ascertained by the mere exhibition of philanthropy towards him, laudable as is the motive; a careful study of him as a human being physically and mentally, can alone render it possible for Europeans to practically and permanently benefit him; this is one of the most momentous questions investigated by anthropologists, and no vituperative monologues on the part of travellers, on the one hand, can materially affect the practical service which science can render him, while a maudlin sentimentality, on the other hand, respecting the black races, will retard his advancement and injure the true interests of humanity.

The following sad statement, extracted from an able letter in the *Daily Telegraph*, is most probably by no means an exaggerated picture of what sudden freedom has done for the negro in the United States,

and is a sufficient commentary upon the cruel kindness which has set him free before his time :—

“A sad report reaches us from the South—no less than 30,000 or 40,000 blacks will, it is said, perish this winter of starvation, if not relieved through the bounty of the Government, and at present the people of the North, who have taxes to pay, object to this continued outlay. The Government also desires to force the negroes to work ; but they, in a large majority, seem incapable of labour, unless actually driven to it by the presence of overseers, and as the black is now free, he will not submit to coercion. The Abolition journals of the North say that these negroes must starve because the whites will not treat them fairly. This is simply false. The truth is the planters make every endeavour to engage the blacks to work. They need them to save the abundant crops from rotting in the fields ; but the negroes will not work. They make contracts and break them, get drunk and become violent and aggressive the moment they have a little money, and will prefer to starve this winter, or steal, rather than resume that life of labour from which they deem themselves emancipated. There is but one remedy for this ; and I hear that the State authorities will at once adopt it. The blacks will be made to work, will be placed under the supervision of accredited agents, and will thus but have exchanged one species of slavery for another. This result was inevitable, as the majority of the poor creatures are totally unfitted for freedom.”*

It was the short sighted humanitarianism of Las Casas that reduced the negro to slavery in the new world, without arresting the progress of the extinction of the Indian races or preventing their deterioration into listlessness, apathy, and decay, mental and physical. But only a true science of man, fairly and frankly explaining the difficult questions in relation to his mental and moral being, can aid in practically establishing the aboriginal man of Africa and Australia at the highest point of civilisation for which he is fitted by nature ; while a civilisation thrust upon him from abroad, without system and without consideration, will only give him a false and fictitious elevation, ending in practised hypocrisy and permanent confusion.

It is not alone, however, amidst the desolate wilds of Australia and the forests of Africa that anthropology can, when directed by high and noble motives, exert a beneficial effect upon mankind. Our own islands, our large towns, our country districts, our hills and moors, our mountains and valleys, all furnish for the anthropologist a field for study, and an arena where great good can be effected. The composite nature of our populations, whose distinctive attributes of race are to be distinguished now as of old, forms a topic of the greatest and instant importance. We have amongst us types as strongly contrasted as those to be seen in other parts of the globe. The Scandinavian, the Saxon, the Celt, the Roman, the Briton, classify or arrange them how you may, are still in our midst with the mental and moral qualities of those types of man as strongly expressed as they ever were ; and much of the misery we see around us is owing to the ignorance so widely spread

* “Daily Telegraph”, November 27, under date from New York, November 15, 1865.

of the principles and facts elucidated by the students of the science of man. We have no right to omit the study of these typical distinctions; we have no right to look upon our fellow countrymen as beings so advanced in the social scale of humanity as to be able to be left to themselves, and to afford no matter of interest to the student of the science of anthropology. There are natural qualities, likes and dislikes, tastes and antipathies, inherent in the man of the British Islands at least as worthy of attentive consideration as those of the Kaffre, the Malay, or the Patagonian. Crime, the offspring of ignorance, with all its concomitant train of horrors, stalks through the land, and its laws remain unknown from the neglect with which the science of man's nature has been hitherto treated. The psychological peculiarities of particular types in England can be gradually ascertained by the study of anthropology, and by the publication of the facts and a dissemination of these facts throughout general society, much evil may be unveiled and obviated. Here again anthropology becomes a practical science of the greatest importance to all. The Social Science reformers have attempted much, but their cause has sped but little, from the method in which they have conducted their investigations. It is useless to consider man imperfectly, to look at the merely mental and moral side of his nature and omit that important element in his constitution, his physical frame. Yet this has been the mode in which reformers of modern days have been discussing man, leaving out half the problem and reasoning upon half the facts. It only needs for the public to become aware that anthropology comprehends both sections of man's nature, for a change of great magnitude to take place in the popular esteem of the science.

Again, man, according to the type he displays, thrives as an animal better in one region than another. While it is true that he can, with comparative impunity, become a denizen of the Arctic regions as of Equatorial lands, it is also true that his health and well-being, both mental and bodily, are materially affected by climatic differences, and that one man can fearlessly pass into regions fatal in their action upon a person of another type. We need only mention the fact of the death of Europeans in Bengal in the third generation as a proof of this. It is no unfitting question to ask, if any science has hitherto attempted to explain these peculiarities in the constitution of mankind? Colonisation, so important in its effects upon the material and social prosperity of any country, may be better and more advantageously conducted when these influences are recorded for the guidance of travellers and emigrants. How many a man has traversed the expanse of ocean between England and Australia, and though endowed with the same energy, gifted with the like amount of prudence, industry, and common sense as another, has returned in disappointment and chagrin from the distant colony, because he met with no success. He may allege to others, or may attempt to delude himself, by saying the country did not suit him, or that the state of society was different in kind to that he had previously known, when probably a better knowledge of his own nature would have shown him that the geological stratification of the country, some peculiarity in the flora or fauna of the place, or some other influence acting insidiously upon his constitution, has lamed his energy,

relaxed his muscles, unstrung his nerves, and left him in the unhappy condition described. A knowledge of the science of man would have taught him this, and saved him from hopeless labour and care.

Another very practical inquiry in which the students of anthropology are engaged consists in questions relating to epidemics, and the reason of their appearance and disappearance among mankind : this is a subject, it will be conceded, of vast importance, and one which, to completely ascertain, requires a range of information which epidemiology proper scarcely affords. History and race require elucidation as well as mere physiological details on this head ; indeed, it may be said that no subject bearing upon man can be very surely illustrated without an appeal to many branches of the great science of anthropology.

Perhaps one of the greatest practical benefits of anthropology consists in the fact of its progressive character. While the science of man "deals with all phenomena exhibited by collective man, and by him alone, which are capable of being reduced to law",* it imposes upon its student no narrowing scientific creed ; but it enjoins upon him the obligation of seeking rigid proof for every assertion made in connection with it. Hence it is essentially an accumulative science, proceeding unweariedly from the known to the unknown—and promulgating nothing that induction does not sanction. This, indeed, constitutes one of the chief excellences of the science of man, and also has the advantage of conducing to the prevention of error, as no anthropologist, from the progressive nature of the science, need be ashamed to admit a mistake, an admission which, in some sciences, would be fatal to the student's reputation.

The practical value of anthropology will receive extended demonstration in proportion to the familiarity with which it becomes regarded in the public mind ; as the students of the science of man increase, so will its usefulness become more apparent to the multitude. Hence the necessity for a non-technical Journal of Anthropology, where in much plainer language the general reader can peruse for himself what is going on in the scientific world on this important subject.

* Bendyshe, "History of Anthropology", in *Memoirs of the Anthropological Society of London*, vol. i, p. 335.

THE WILFUL EXTINCTION OF ABORIGINAL TRIBES.

COLONISATION means something more than the settlement of immigrants in a new country. Without referring to the records of ancient time, modern experience tells how universally it has been found that native tribes begin to disappear almost simultaneously with the arrival among them of a civilised people. America, Africa, Australia, New Zealand, and some of the islands in the Pacific, furnish evidence which seems to say that to colonise and to extirpate are synonymous terms. The idea which this truth conveys, the thoughts which spring up in the mind under a calm consideration of it, must impress, not scientific men only, but every one, with the importance of inquiring into the causes of such a phenomenon. And we do not mean to say that inquiries have not been made. Many persons have interested themselves in the question; and some from practical experience, others by laborious ingenuity, have set forth explanations which seem to satisfy at least those who make them. But the investigation has never been conducted with that impartiality and earnestness necessary to arrive at the truth. The explanations usually relied upon may not be altogether without value; but those which have the most weight are very much exaggerated, and even then they fail to account for all we see. There is, in fact, too much readiness to explain things in such a way that the blame shall rest upon the native tribes themselves, and that none shall fall upon the shoulders of the white settlers; whereas, in reality, the converse is true.

Disease and brandy have doubtless done much to carry destruction into the ranks of the aborigines in many places; but not so much as is usually alleged, nor anything like sufficient to account for the losses which their numbers are every year sustaining. Murder makes up the deficiency; not murder at the hands of the aborigines themselves, but murder wilfully perpetrated by the white colonists. We are well aware that this assertion involves a fearful responsibility; that it implies a criminal charge of the utmost gravity against our own countrymen, and too often against men, and—shall we say it?—women too, who claim a place in the ranks of society, and who would feign look with disdainful horror upon one who might err but lightly against the dictates of social morality. The assertion may be startling to many, but it is none the less true; and its truth can be supported both by extraneous evidence, and by our own experience in lands where the aboriginal races are at this moment undergoing extermination.

The early history of the North American settlers is one continuous tale of horror. Many of the tribes that once roamed over lands which now form part of the United States, owe their extermination to that indefinable thirst for blood which seems so mysteriously to come over civilised man when he is placed in contact with inferior tribes, and feels himself untrammelled by any human law. A recent writer, who passed many years in Texas, narrates, with every semblance of truth,

an account he had received from an old resident in the far West, of the last of the Carankowa Indians. He tells us how, on one occasion, a white woman was killed by one of the tribe, but he does not record what provocation had previously been given; and this is a point almost always kept in the background. To avenge this death, the woman's husband, aided by two or three of his fellows, shot the chief of the Carankowas, and then made it his business to gather together all the settlers to be found within many miles, for the deliberate purpose of slaughtering the whole tribe. The town of Matagorda now stands within two miles of a spot where these white settlers fell upon the Indians, and murdered in cold blood every man, woman, and child that could be found. Three only escaped; and the last of the Carankowas was a few years since a beggar in the streets of Matagorda.

This is only one of many like stories that could be told about the first white occupants of North American territory; nor are the Spaniards of the South less free from similar charges that could be brought against them. The Dutch at the Cape of Good Hope, too, must be placed in the same category; and so must the British colonists in Australia and New Zealand; and to some extent, also, the French in New Caledonia. It appears, indeed, that independently of nationality, or any other incidental circumstance, the mere fact of a white man emigrating to a new country makes him thirst for the blood of its natives; and he shoots them down, or cuts their throats, with as much glee as he would erst have slaughtered pheasants in an English preserve.

The excuse usually given for this is, that the natives are the first aggressors; and it is an useful excuse, because, except by persons who have themselves had some experience in the matter, it cannot be answered. We happen however to know that very frequently, at least, it is not true, having personally investigated on the spot, in their own native lands, the relations that exist between some aboriginal tribes and their white neighbours; and, as a rule, in almost every instance of indiscriminate slaughter that came under our observation, the first provocation was given in some way by the colonists.

Those who wish merely to exonerate themselves, usually allege some murder perpetrated by the blacks as an apology for the subsequent death of the whole tribe. Sometimes this is simply untrue; but in all cases where inquiry could be fully entered into, and where such a murder had been done, it was found invariably to be by way of retaliation for some injury or insult, real or imagined, first received from the whites. The different conditions of the two races must here be borne in mind. Aboriginal tribes cannot be expected to maintain the manners and habits of Europeans. Moreover, they have a perfect right to regard them with suspicion; and, having no precepts or principles but their own crude fashion to govern them, they are prone to misconstrue the conduct that is shewn by others. On the other hand, the white settlers are equally apt to dishonour themselves. They make no consideration for the weakness and rude ideas of the aborigines. They regard them only as so many butts for ridicule, insult, or practical joking; if not worse. And then, in return for this, the

natives know no revenge unaccompanied by death. This indicates briefly the course of events that tends more than anything else to the rapid extinction of aboriginal tribes.

In Queensland, at the present time, the foulest murders—for we can call them nothing else—are of constant occurrence. White colonists are destroying the natives by whole tribes; and the government of the colonies sanctions the system by a policy of non-interference, even as in former days the government of Van Diemen's Land was wont to do. The only way known to the settlers of Queensland for solving the question of treatment of the aborigines, is to kill them; and they do it with a zeal worthy a better cause. They are aided, too, by the native police, a body of men supplied and paid by the government, who appear never to show mercy or quarter of any kind when they chance to meet with a body of natives. Unresisting men, women, and children are shot down indiscriminately; and sometimes these slaughters are preceded by atrocities on the part of the authorised officials which are too horrible to be enumerated here.

This system, however, is not peculiar to Queensland. The same was once common in Victoria, and, within smaller limits, it still obtains in the far west of New South Wales, and in the north and west of South Australia; although nowhere, at this day, to the same extent as in the youngest of the Australian colonies. But, although thus wide-spread and prevalent, there is nothing in the character of the aborigines in any way to justify it. They are harmless, and even kindly disposed; neither warlike as the Red Indians of America or the Maories of New Zealand, nor treacherous and blood-thirsty as the Malays of the northern archipelago. Burke, the first explorer who traversed the entire Australian continent from south to north, owed many days existence to the kind hospitality of tribes he fell in with in the far interior; and, except for the carelessness of those of his own party, on whom he depended for help, he and his companion Wills might now have been alive to record how much gentleness of disposition, how much self-denial, how much true friendship, they had experienced among men and women of the native tribes.

The same must be said of the aborigines of Van Diemen's Land. These people were even yet more harmless than those of Australia, and still they have disappeared. Probably, however, greater atrocities were at one time perpetrated in this vile convict settlement (beautiful and rich though it be in natural wealth) than in any other part of the British dominions. We were once riding through the island to see its beauties, and to learn its history; for a terrible history it has. Having passed for some miles through a thick forest of acacia trees, that made the air oppressive with the scent of their beautiful primrose-coloured flowers, we came across a rocky water-course into a luxurious valley that extended from the sea some distance up the country, walled in on both sides, as it were, by rugged forest-topped hills. The scenery of Van Diemen's Land is magnificent in the extreme, and this particular locality where we now were is inferior to none. But events of the past darken it.

Crossing over to the other side of the vale, we came to a good brick-

built house, the property of one of those early settlers who, having held commissions in His Majesty's service, preferred to live in the far bush, on lands granted to them by the Crown. Here we rested, and for two days enjoyed that free hospitality which is ever accorded to travellers in any part of Australia. But we also learned much of the past life of these early settlers; and it is due to them to say that they told their experiences with very little shame or reluctance. The head of the house was old and bed-ridden; but his family was about him, and his daughter—now no longer young—attended to the comfort of her guests. She told us many tales connected with the treatment of convicts under the old system; and, her father being a justice of the peace, she had many to tell. But, besides this, we asked her much about the aborigines. She remembered the day when the valley we had seen was the favourite resting ground of many of the eastern tribe, when they sought a camping place on the banks of the creek we had crossed, and found food among the ranges we had admired. But almost all, she added, had been killed; and, if any survived the fowling-pieces of the settlers, they must since have died under government protection. She told us that in early times, and, indeed, as long as there were any natives left, it was a favourite amusement to hunt them. A day would be selected, when the neighbouring settlers were invited with their families to a picnic. Husbands and wives, sons and daughters, would come in to a social gathering. The rooms would be deserted, and luncheon—or dinner, more correctly—would be had upon the lawn in front of the house. All would be gaiety and merriment; and after dinner the gentlemen of the party would take their guns and dogs, and two or three convict servants, and wander through the bush in search of black fellows. Sometimes they might return without sport, for the game was never very plentiful; at others they would succeed in killing a woman, mayhap, or, if very lucky, a man or more may have been bagged.

The details of this, told, too, with the utmost unconcern, horrified us. At the time, we doubted in our minds whether the story was free from exaggeration; we doubted, even, whether it was not altogether fiction. But it was not: all was literally and strictly true. The lawn we saw before us had been the scene of such gatherings, the bush behind the house had been the scene of such murders; and the house itself was only one of many that had a similar history to tell. It was horrifying, but it was not false that wives and daughters did in those days lend their countenance and their presence to these sports against native tribes; while husbands and sons shot black fellows, and consoled themselves with the doctrine that, if they did not, the "niggers might rob the hen-roosts."

And now we must recollect that, while such a narration as this refers but to the past, similar atrocities are being at this moment practised. If women are not sanctioning them, men are doing them; and it becomes simply a question whether, amid a wide-spread ignorance about aboriginal races in this country, we ought to allow the stain of blood further to rest upon our countrymen in the colonies; or whether it is not rather our duty, as a civilised people, to dis-

courage murder everywhere, and to protect, rather than to slaughter, those whose hunting-grounds we occupy, and whose worth we misunderstand. Upon this point anthropologists are not divided, nor in doubt; yet, withal, any responsibility which rests upon the shoulders of those who study mankind, must be equally shared by all who claim a place in the ranks of civilisation.

ON THE NEGRO REVOLT IN JAMAICA.

To those who have made even a partial study of the psychological character of the negro, the recent outbreak in Jamaica will have caused little astonishment. Had not this island been so highly favoured by nature as to require but little assistance from man to enable the soil to bring forth its produce, this insurrection would have occurred long ago. So long as the negro is well fed, there is no fear of insurrection. It is not our duty to enter into the political economy of the question; but, even in respect of this, the problem does not appear to us to present that difficulty and uncertainty which have been attributed to it by many writers. All experience teaches that the negro is a mild and harmless being, when supplied with food, and only becomes dangerous when deprived of it.

The negro labours under the misfortune of being more than any other race thoroughly misunderstood by the educated European. Not only in England, but throughout Europe, much ignorance prevails respecting the psychological character of the negro. To discover the origin of this misapprehension we should have to retrace the history of the connection of the negro with the white races during the past two centuries, and also to notice the part which the various theories respecting man's origin have had in this question.

For the last half century the negro has been an idol to the masses of the British public, and all classes of society have refused to listen to any depreciation of this chosen race.

The so-called philanthropists of England, not content with placing the negro on an equality with the European, have actually gone the length of coinciding with Dr. Channing in his assertion that when the negro became civilised, he would expect "more amiability, tranquillity, gentleness, and content," from him than from Europeans.

Nor is one class of society more than another able to lay claim to correct views on this subject. Nearly all classes in England have, during the last half century, agreed that the negro is a being very little (if at all) inferior, either mentally or morally, to the European. Men of science, even, have joined in the same chorus, and the advocates of the ape-origin of man have come forward to defend this fashionable idol from any assaults his dignity may have sustained at the hands of the few who have declined to swell the strain of adulation. There has been a small party in England, which within the last three years more

especially, has done something to stem this current of popular delusion, but such exceptions only prove the rule. The revolution in Jamaica has come like a thunderclap upon the English people.

It is surprising how much greater impression is made on the public mind by a few facts, like those brought to light in Jamaica, than by all the observations of travellers and men of science who have studied the subject. But even at this moment (although men stood appalled at the first news of the atrocities perpetrated by their idol), a large party are attempting to defend and justify his acts, at the expense of the wise and brave governor of the island, rather than to renounce their cherished negro-worship, and own that they have been in error respecting him. Throughout the whole of the war in America, any man who came forward to speak in terms at all unfavourable of the negro, was at once denounced as a "confederate agent"; and the "British Association for the Advancement of Science" hissed the very statements which since the Jamaica outbreak, meet with the warmest approval from the general educated public, when appearing in the columns of the *Times* newspaper. This indicates an important change in public opinion, and without at present going into the merits of the question, it is a hopeful prospect that the British nation is at last alive to the importance and magnitude of the subject.

The following extracts from the leading journal* admirably express the change which has come over the mind of the nation with regard to the negro:—

"The rebellion of the negroes comes very home to the national soul. Though a fleabite compared with the Indian mutiny, it touches our pride more and is more in the nature of a disappointment. In the mutiny the public anxiety very soon concentrated itself on particular groups of suffering and danger and on the more conspicuous movements of the army. There was hardly such a thing as a general question raised. We must put down the mutiny, and there was an end of it. The wound is healed, and has left not a rankle—no, not even a scar. But Jamaica is our pet institution, and its inhabitants are our spoilt children. We had it always in our eye when we talked to America and all the slaveholding Powers. It seemed to be proved in Jamaica that the negro could become fit for self-government; that he could be a planter, a magistrate, a member of the Legislative Assembly; that he could preach and pray with unction and even decorum; that he could behave like a gentleman, and even pay taxes. Certainly the outside of things was delightful. There was only one white to about fifty coloured people; only a handful of soldiers; scarce a ship of war ever in port; and within a day's sail a Black Republic. This was the outside, and of the inside little enough was known. Of course the negro's own special friends did not abuse him, and a couple of thousand white families had something better to do than to re-open an old sore. We were told, indeed, by those whose fate had ever cast them on that shore, that the negro was incurably idle, intractable, insolent, that he needed a strong master, and was incapable of either

* See leading article in the "*Times*", November 18, 1865.

self-control or gentle management. It was clear that he would have valued his freedom more if he had earned it and not had it for nothing. But very little of this came out. The clergy, indeed, reported a miserably low morality, gross and grotesque fanaticism, a readiness to follow any leader, a love of wild revivals and of secret meetings for any purpose. We were all prepared for this, and could not help it. But, at any rate, there was the broad fact that Jamaica was black, free, almost self-governing, quite self-taxing, prosperous, quiet, and happy. Who could gainsay the fact? Alas for grand triumphs of humanity, and the improvement of races, and the removal of primeval curses, and the expenditure of twenty millions sterling, Jamaica herself gainsays the fact and belies herself, as we see to-day. It is that which vexes us more than even the Sepoy revolt."

Now we by no means join in the outcry against attempting the improvement of such races as the negro, but, while admitting the necessity of re-opening the whole question, we would start with this premise, that if the improvement of races is to take place, it must be conducted calmly on scientific principles, apart from philanthropic sentimentality. The cry comes from all England, what can we do? What ought we to do? But before this question can be settled, or even discussed, we see that one man at least, the noble governor of the island, has deemed it necessary to act, in the recent emergency, with promptness and decision, knowing, from his experience, that hesitation would have been fatal. We were at first not a little astonished at the decisive measures taken by Governor Eyre: measures which could alone have resulted from a most thorough insight into the negro character. His complete appreciation of them appears when he says:—"One moment's hesitation, one single reverse, might have lit the torch which would have blazed in rebellion from one end of the island to another, and who can say how many of us would have lived to see it extinguished?"*

When we remember Mr. Eyre's antecedents, this acquaintance with the race-character of the dark races is not remarkable. Mr. Eyre has for ever established his name as a friend of the Australian aborigines, and his long experience in that part of the world enabled him to study the great question of race, and thus he is especially qualified by previous education for the position he now holds.

For years past complaints have come from Jamaica that the negro would not work, and that the whole island was fast becoming a wilderness. We now learn on the most reliable authority of the governor, that:—"The entire colony has long been, still is, on the brink of a volcano which may at any moment burst into fury. There is scarcely a district or a parish in the island where disloyalty, sedition, and murderous intentions are not widely disseminated, and in many instances openly expressed."

And what is the cause of all this dissatisfaction? Within the past year we have heard much of missionary efforts amongst savages, and before that discussion is concluded, the official of one of the largest

* Address to Legislature.

missionary societies is charged with having contributed in no small degree to produce the rebellion which has taken place. Governor Eyre says :—

“ I cannot myself doubt that it is in a great degree due to Dr. Underhill's letter and the meetings held in connection with that letter, where the people were told that they were tyrannized over and ill-treated, were over-taxed, were denied political rights, had no just tribunals, were misrepresented to Her Majesty's Government by the authorities and by the planters, and where, in fact, language of the most exciting and seditious kind was constantly used, and the people told plainly to right themselves, to be up and doing, to put their shoulders to the wheel, to do as the Haytians had done, and other similar advice.

“ The parties who have more immediately taken part in these nefarious proceedings are :—firstly, G. W. Gordon, a member of the Assembly and a Baptist preacher ; secondly, several black persons, chiefly of the Baptist persuasion, connected with him ; thirdly, various political demagogues and agitators, who, having no character or property to lose, make a trade of exciting the ignorant people ; fourthly, a few persons of better information and education, who find their interest in acquiring an influence among the black people by professing to advise them, while in reality they are but exciting and stimulating their evil passions ; fifthly, a few Baptist missionaries, who like ——— endorse at public meetings or otherwise all the untruthful statements or innuendoes propagated in Dr. Underhill's letter ; and, lastly, a section of the press, which, like the *Watchman* and the *County Union*, is always disseminating seditious doctrines, and endeavouring to bring into contempt the representative of the sovereign and all constituted authority.”

These are indeed melancholy charges, and if true, would seem to justify to a great extent much of the abuse which has recently been lavished on the proceedings of some amongst the missionaries. We hold, however, that it is not fair to judge of missionaries as a class by the sayings or doings of such a man as Dr. Underhill. That this man deserves all the odium which he has had cast upon him, we are quite ready to admit ; but we still contend that genuine missionary enterprise, rightly conducted, tends to diffuse civilisation, and enlighten humanity. But even in Governor Eyre's opinion, the charge of exciting this rebellion cannot be laid solely at the door of the missionaries. He says :—

“ The misapprehensions and misrepresentations of pseudo-philanthropists in England and in this country, the inflammatory harangues or seditious writings of political demagogues, of evil-minded men of higher position and of better education, and of worthless persons without either character or property to lose ; the personal, scurrilous, vindictive, and disloyal writings of a licentious and unscrupulous press, and the misdirected efforts and misguided counsel of certain ministers of religion—sadly so mis-called, if the Saviour's example and teaching is to be the standard—have led to their natural, their necessary, their inevitable result among an ignorant, excitable, and

uncivilised population—rebellion, arson, murder. These are hard and harsh words, gentlemen, but they are true; and this is no time to indulge in select sentences or polished phraseology."

We fear that a great share of the blame must be charged upon the "pseudo-philanthropists in England." Up to this time their doctrines have impregnated the minds of men in the very highest stations. All this is now fortunately at an end, and we seem about to begin a new order of things. Governor Eyre proposes to alter the form of governments in the island. This has startled many persons who have not studied the negro, but will not astonish those who are acquainted with this race. For instance, in a recent paper by Dr. Hunt, on the negro's place in nature, we find these words:—"I have stated that one of the results of my inquiry leads me to believe that English institutions are not suited to the negro race." In this opinion Dr. Hunt does not stand alone, but we believe that he is supported by all who have thoroughly and honestly investigated the subject.

The physical and mental characteristics of the negro have been the subjects of much discussion, before the Anthropological Society of London, but the *Anthropological Review* has, curiously enough, abstained from taking any part in the controversy. The public mind, however, now seems alive to the importance of the subject, and we begin by again opening this discussion. Two extracts will suffice to show that Dr. Hunt is not a foe to the negro race. At p. 54 he says:—"No one can be more conscious than myself of the horrors of the 'slave trade,' as conducted at this time. Nothing can be worse for Africa generally than the continual capture of innocent men and women by brutal Europeans. Few things can be more horrible than the manner in which it is attempted to carry these people across the Atlantic." At p. 55 he says:—"I by no means join in that indiscriminate abuse of the negro character which has been indulged in, especially by those who have only seen the negro in his savage state, or the 'emancipated' (from work?) in the West India Islands."

As far as we can judge, the author of this paper is a true friend of the negro, for he goes on to say:—"It is painful to reflect on the misery which has been inflicted on the negro race from a prevailing ignorance of anthropological science, especially as regards the great question of race." He also well observes:—"It devolves on the student of the science of man to assign to each race the position which he should hold. This is truly a momentous and most difficult problem, but one which science must not evade. As the student of mechanical science has given to the world his inductions and discoveries, so must the student of the science of man endeavour to deduce from actual facts, principles of guidance for the relation of one race to another." We believe that this question demands far more serious attention than it has yet received from the public, and that a journal specially devoted to these and kindred subjects cannot but prove a beneficial auxiliary to the progress of civilisation. That the negro in Jamaica has been spoilt by mistaken treatment, there seems to be no doubt, but as to the best practical remedy for this state of things, we are not yet in a position to decide. We shall watch with much in-

terest the development of Governor Eyre's plans, for he has already shown such comprehensive acquaintance with the negro character, that he is unlikely to apply the wrong remedy. In addition to his opinion as to the cause of the mischief, Governor Eyre further remarks :—

“I know of no general grievance or wrong under which the negroes of this colony labour. Individual cases of hardship or injustice must arise in every community, but, as a whole, the peasantry of Jamaica have nothing to complain of. They are less taxed, can live more easily and cheaply, and are less under an obligation to work for subsistence than any peasantry in the world. The same laws as to the imposition of taxes, the administration of justice, and the enjoyment of political rights, apply to them and to the white and coloured inhabitants alike. They ought to be better off, more comfortable, and more independent than the labourers of any other country. If it is not so it is due to their own indolence, improvidence, and vice, acted upon by the absence of good example and of civilising influences in many districts, and by the evil teaching and evil agencies to which I have already referred in all.”

We remarked at the commencement, that beyond a doubt the primary cause of this outbreak had been the comparative scarcity during the past few years, and no doubt the present climax is the result of a long period of fermentation. A scarcity of food, indeed, is no surprising result of a country having been allowed to become a wilderness. Those, too, who know how easily the ignorant classes amongst our own population may be misled, will readily understand the effect of seditious teaching on a mind at once so childlike and so suspicious as that of the negro. During the first few days of the insurrection we saw some of the worst passions of the negro brought to light. Had it not been rapidly suppressed, the horrors of the Indian mutiny would have been as nothing in comparison with the hideousness of the negro in revolt. Even as it was, we have had details of the tongues of Europeans being cut out previous to their being put to death; of clergymen hacked to pieces, and of others barbarously murdered simply because they were whites; whilst we are told of a few faithful blacks having their bowels ripped open, and others cruelly burnt, solely because they sympathised with the Europeans.

Had the negroes once gained the upper hand, the result would have been horrible to contemplate; and had not they been frightened and overawed at the commencement, such a result would have been not only a possibility, but a frightful probability. Never did man, however, show himself more to be the “right man in the right place” than Governor Eyre on this occasion, and proud must all true-hearted Englishmen be of their countryman.

It is not now our province to enter into details respecting the means whereby this sudden terror has been struck into the mind of the negro, still less to sit in judgment on the acts of a man of Governor Eyre's sagacity and experience, we simply know that what it was necessary to do was done, and that most effectually. Such a lesson will not be lost during this generation, unless it is marred by the

mistaken zeal and misrepresentations of the negro-worshipping party in this country.

A large field is open before us, and in future numbers we shall hope to develop some practical suggestions bearing on these questions. But before we do this, we must disseminate more widely such facts as are at present known of the negro, and also of other races. A great portion of our pages will be devoted to these subjects, and we earnestly invite the co-operation and assistance of all who are interested in this work, by furnishing us with the results of their observation and experience, or communicating any facts that may serve in any way to throw light on this complicated question.

THE BAPTISTS AND THE JAMAICA MASSACRE.*

VERILY there are times and seasons for begging as well as for most other of the annoyances of life. But that this particular time should be chosen to send round little girls furnished with filthy cards embellished with smudged engravings of the declarations of "the gospel" to a lot of woolly-headed, thick-lipped monsters of ugliness, and asking for money for dissenting missions to the West Indies, almost passes belief. The writer hereof, however, has this week had such a demand made upon him in such a manner, and through the usual medium of an unpleasant little girl with a blotchy face, whose arrival was heralded by a single knock, and who, well tutored in annoying persistence, refused to leave till she had "an answer from the gentleman." It is to be feared there was in the purloins of the adjoining Bethesda school-room some mourning over the energetic and reprobate character of the answer at length squeezed out. But the fact remains that Dissenters are even now impudent enough to ask for money for West India Missions; are absolutely so shameless as to request Englishmen to contribute to funds which have been employed for two such objects as the restoration of Obeah worship among the negroes and the promotion of the massacre of the white population of one of our colonies. These charges no doubt appear grossly exaggerated; but before we bring this article to a close we shall take the liberty, *pace* Sir Morton Peto, of showing that there is an ample *prima facie* case in support of them.

The *Westminster Review* for October, reviewing Lady Duff Gordon's clever and entertaining "Letters from Egypt," calls attention to the "hatred for the negro which is now so curiously characteristic of almost all Anglo-Saxons but the professional or sectarian philanthropists of Exeter Hall." Is it not true? Have we not unlearned all the stupid negrophilism that was, twenty years ago, a daily lesson for us—that culminated in the homage offered to every uncouth nigger who honoured

* This article is printed as an illustration of the change of tone which has taken place in this country on the subject of the "Negro" and "Missionary Enterprise". It appeared in the "Church Times" of November 25th, 1865.

the gilded saloons of Stafford House with his odorous presence? What proportion of the English people is now prepared to swallow the statement that the emancipation of the negro in our West Indian Colonies was a wise measure wisely executed? And how much longer is the public to be nauseated by the presentation of "the everlastin' nigger," as the model being of creation—the most ill-used, athletic, industrious, peaceable, and religious of mankind? Gentlemen of Exeter Hall, the game is entirely up! Ladies, given to "presiding" over weak tea and tooth-endangering currant loaves, your ebony friend has fallen from his high estate and swings, by representation, for the delectation of the turkey buzzards of the Gulf of Mexico! It was high time.

We are not concerned in these columns to deal with the political aspect of the rebellion which has been crushed in Jamaica by the prompt measures of the executive; although we cannot but concur with the majority of our daily contemporaries in reproving the un-English and dastardly attacks made by the *Daily News* and the *Star* upon the officers engaged in the pursuit of the rebels. That the apologists for Butler and Turchin in the American conflict should be the apologists for the black murderers and mutilators of Jamaica was only to be expected; and the prints which, as far as they dared, commended the conduct of the sepoys during the Indian Mutiny, have had a congenial task in finding every excuse for the negroes who tore out a fellow-creature's tongue while he yet lived, and in denouncing with bitterness everything done by the white authorities. It is rather upon the collateral revelations of this tragedy that we have to comment, and we would have been glad could we have persuaded ourselves to forego the task.

To rightly comprehend the circumstances under which the outbreak took place, it will be necessary to look back to the time of negro emancipation. Thirty years have passed since that measure was carried into effect by the present Lord Derby, then Lord Stanley and Secretary for the Colonies; and through that time the negro in Jamaica at least—and it will not be wrong to say the West Indian negro as a class—has steadily degenerated. While the statesmen who, with the best intentions, gave him his immediate freedom at an expense of twenty millions sterling to English pockets, believed that he would work under freedom as well as he had worked under slavery, and would gradually, as he felt relieved from the pressure of his chains, assert his manhood and become a credit to humanity, the result has been exactly the opposite. The unconquerable indolence of his nature has led him to be content with a mere livelihood which he could always obtain from the tropical bounty of nature, aided by the labour of half-a-dozen hours in the week. To scratch the ground, to grow yams, to loll in the sun, to sell his yams or his fruit for rum—these have been the noble pursuits of the liberated black-man, for whose benefit the planters of the West Indies were ruined, and whose noxious freedom the nation purchased at the cost of two and sixpence in the pound on its entire earnings for the year. But of all the negroes that particular animal which had its own way in Jamaica was the worst of its class. In some of the other colonies, the absence of waste land, the existence of a

limited labouring population, and the consequent necessity for work in order that the creature might eat, tended to keep the negro from going down hill so speedily as he did in Jamaica. In that island, however, as it was the largest British possession in the Gulf, so the experiment of a free negro population had the fairest trial. From time to time mutterings have reached England that all was not well. Conscious, however, that we had taken the generous course, England refused to listen to these reports; and it was only incidentally that the public conscience had become convinced of the folly of the act of immediate emancipation when the country was moved to its depths by the tidings that the negroes had attempted a general massacre of the small male white population of the island. This was the fruit, then, of our "noble" generosity! We may add, in sorrow, that under the conditions of Jamaica life since emancipation, it was the only fruit to be expected.

But who were the instigators of the discontent that led to the rebellion and the attempted massacre? The question admits of only one answer. The Baptist Missionary Society must be held responsible by public opinion for this result of their "labours." Everything tends to this irresistible conclusion—the reports of the colonial press, the despatch of Governor Eyre, private correspondence, and not least, a letter which has been sent to the *Times* by a Presbyterian minister living upon the spot. The influence of the Baptists in Jamaica has been such that their adherents among the negroes probably outnumber all other denominations; and they appear to have flattered the blacks to their bent by setting them up as preachers to their fellows. Now, if there is anything the negroes like better than rum and laziness, it is howling a ranting hymn to a ribald tune; and after that in their affections ranks the ordinance of preaching. To make the leading men among the negroes preachers in the sect, was a shrewd policy on the part of its managers; nor do they seem to have been very particular about negro additions to the belief of Anabaptism, since it is quite certain that they permitted them to hold private conclaves, wherein something like the fetish *cultus* of the Gold Coast was introduced for the purpose of awing into secrecy those admitted to the assemblages. That the Baptist Missionary Society could have been ignorant of these proceedings it will need much influence to convince Englishmen after the recent revelations; the more, that Dr. Underhill, the Secretary of the Society, has recently been in Jamaica, and done his best, in public and private, to convince the negroes that they have been cruelly wronged, that the white men have shamefully oppressed them, and that, in point of fact, they ought not any longer, as the major part of the population, to stand mere equality with the whites. Nor is this conduct of Dr. Underhill an exceptional thing on the part of representatives of the Baptist body. The rebellion of 1831-2 was fomented by pestilent fellows of the same sect; and though some Independent Baptists have separated from the main body, there is no attempt to deny that the recent discontent has been fanned into flames by the Baptist Missionary Society. Sir Morton Peto himself, with all his assurance,

and his subterfuges, will hardly care to deny that from the visit of Dr. Underhill dates the determination of the negroes to rebel and have a general massacre. Sir Morton has said that Gordon, the negro leader and member of the House of Assembly, who has been speedily hung out of hand, never joined a Baptist congregation. Governor Eyre in his despatch enables us to show how closely Sir Morton Peto adheres to the truth. The Governor distinctly states that Gordon was a Baptist preacher (see paragraph 64 of the despatch of 20th October), and we prefer, in common with the majority of Englishmen, to believe that it is not Governor Eyre who has told a falsehood.

What has the Baptist Society to say for itself? If it should greatly dare to attempt a vindication, it would be well advised to put forward a spokesman more accurate in his facts than Sir Morton Peto and less deeply implicated than the man Underhill.

Sensible Mr. Radcliffe, "minister of the Established Church of Scotland," at Kingston, has anticipated in his eloquent appeal for protection against the negroes and their abettors what will be the public verdict on this business. In the present state of English feeling, though Sir Morton Peto and the *Daily News* may invent any number of facts and arguments to the contrary, the nation will not permit even a small white population like that of Jamaica to be left at the mercy of the bloodthirsty black ruffians, of whom Mr. Radcliffe well says "we have been petting panthers," and whose celebration of their massacre consisted in the withdrawal to a Baptist chapel and the drinking of the brains of their victims mixed with gunpowder and rum! We have spoken above of the tacit encouragement of Obeah worship. Every one who has been much among the negroes of the West Indies and of the American Continent—and we do not write without an experience among them of several years—knows that they have an almost irresistible tendency to lapse into the private cultivation of their heathenish rites, and that they have in several places made up an atrocious compound of Nonconformity and Fetishism, which is a trifle worse than heathenism pure and simple. That the Christianity was almost eliminated in the Jamaica mixture may be taken as proved by the selection of Christmas Day for the purposed massacre of the whites. If any one still doubts the cognizance of the Baptist ministers of the existence of this mongrel system, let them learn that the Executive have arrested at least five of these preachers for complicity. If any one doubts the existence of some such terror-striking organisation, let them read what an eye-witness writes from Port Antonio. "As to confessing anything about the origin and originator of the rebellion, they (the prisoners) have an utter horror to do so, and you should see the look the others give to any fellow who begins to make disclosures. They appear under an Afric-Masonic oath." Altogether, it is difficult to evade the conclusion that there is at least *prima facie* ground for the charge that the Baptist Missionary Society may be fairly accused of employing in the promotion of murder and the revival of heathenism the funds entrusted to their care. For the sake of our common humanity we hope they will be able to show that it was "in ignorance they did it."

RACE ANTAGONISM.*

It is now more than fifteen years since a well-known and eloquent scientific anatomist somewhat startled the "broad-brimmed philanthropy" and "dismal science" schools by the peculiarity of his views, and the boldness with which he enforced them in his "Fragment on the Races of Men." True it is that some of the opinions of Dr. Knox were not only opposed to the tenour of the thinking of the time, but were expressed in a manner which men who were not enslaved by mere conventional platitudes or the dread of Exeter Hall extremely regretted. There was evidently also much more below the surface than the witty and caustic writer chose at once to expose, and this, too, rather of an anti-theologic tendency than of a definite scientific value. Hence it can scarcely be wondered at that the "Fragment on the Races of Men" is not as often referred to or at least quoted as it otherwise might have been. Other faults, no doubt, it likewise possesses incidental to its incomplete, discursive, "fragmentary" character. But to the reflecting, unprejudiced reader it is a little mine of suggestive and interesting thought. Amongst the more important of the principles enunciated by the once great anatomical teacher was the doctrine that human character, individual and national, is traceable solely to the nature of the race to which the individual or nation belongs, and that so far back as historical evidence goes, no change has taken place in the races of men, nor, in fact, in any animal form. "Race," said Dr. Knox, "is everything—literature, science, art; in a word, civilisation depends on it. . . . With me race or hereditary descent is everything; it stamps the man." And these races have always been as they were at first; for "on the banks of the Nile still wander in considerable numbers the descendants of men who built the Pyramids and carved the Sphinx and Memnon. On the tombs of Egypt, the most valuable of all existing records, there stand the Negro, the Jew, the Copt, the Persian, the Sarmatian, nearly as we find them still. Different races of men are sketched on the walls of the tomb opened by Belzoni, showing that the characteristic distinctions of races were as well marked three thousand years ago as now. The Negro and other races existed then as they are at present; or if a pure race has appeared to undergo a permanent change when transferred to a climate materially differing from its own, such change will be found on closer inquiry to be delusive." If these opinions met with little acceptance from a prevailing school of ethnologists, the general public, knowing nothing about the scientific facts—the "broad-brimmed school of philanthropy"—was indignant at the idea that these races would for ever be at war with one another, and that science had been "enabled to predict the coming war of race against race which had convulsed Europe during the last two years."

* This article is a reprint from a leader in the "Lancet" of December 2nd, 1865.

This doctrine of a necessary result and continuance of the war of race was the keystone of one of the arches supporting the Edinburgh anatomist's anthropological edifice. He maintained that such conflicting elements could never agree. "I foretold," said he, "the breaking down of the iron despotisms of Hapsburg and Brandenburg as a necessary result of a war of race; it came in '47. The gold of England and the sword of Russia, either thought invincible, could not amalgamate the dark-haired Fleming with the Saxon Dutchman. Seven hundred years of absolute possession have not advanced by a single step the amalgamation of the Irish Celt with the Saxon English. The Cymbri of Wales remain as they were. The Caledonians still linger in diminished numbers, but unaltered on the wild shores of their lochs and friths, scraping a miserable subsistence from the narrow patch of soil left them by the stern climate of their native land. . . . The Orange Club of Ireland is a Saxon confederation for the clearing the land of all Papists and Jacobites; this means Celts. . . . And now for the Negro and Negroland, there is between the former and the white man exterminating war; yet this despised race drove the warlike French from St. Domingo, and the issue of a struggle with them in Jamaica might be doubtful; but come it will, and then the courage of the Negro will be tried against England."

To these and analogous teachings the public in general gave little heed. They were, in fact, not only uncomfortable doctrines, but, worse still, they were not exactly *comme il faut*, or such as were heard at the "May meetings." Besides, it was perfectly astounding to a thorough-going Englishman, with all his amusing nationalities, that no amalgamation of races—if there really were such distinct things—could be made to take place, even by an *Act of Parliament*. Alas, no! as Dr. Knox said, it ever has been, and ever will be, that race will be pitted against race in often *exterminating* war. It is only another phase of the Darwinian "natural selection" after all. Were Dr. Knox still living, what would he not probably now say? Might he not point to India and portray the massacres of Delhi and Cawnpore as illustrations of his argument of the war of race? Would the Slave in Russia, when he met the Saxon and the Celt, be nothing to his purpose?—nor the red-skins of the Mexican revolts and guerilla warfares hovering over the whiter faces of their Spanish and French invaders help him towards his truth? If he desired more, would there not be Australia, whither we have been so recently sending over a few rifled guns and revolvers? By the last Cape mail we are told that "the war between the Free State and the Basutos continued," and that "the Transvaal army had advanced to Harrismith." There has lately been a little news from amongst the Celts in Ireland and America, who are concocting a *jeu d'esprit* with Fenianism and gunpowder to "hunt the Saxon from the isle." And more than these things would be at Dr. Knox's service. He would have that latest of all ethnological puzzles to some—the present "insurrection in Jamaica;" an insurrection, however, which he, as we have already seen, foretold upon scientific principles, which Carlyle, in his tract on "The Nigger Question," hinted at as probable on grounds of social economy, and which Anthony Trollope, in his "West Indies

and the Spanish Main," predicted from actual observation would come to pass. And here it is in verity. In spite of the negro being "a man and a brother," and in the face of his freedom and all that he owes to Exeter Hall philanthropy, here he is preparing to murder all the white men first, and afterwards the children; but to keep the white women and the pumpkins for himself. Here he is, at last, cutting off the breasts of women, pulling out the tongues of men, disjointing the fingers and trailing about the bowels of his half-murdered masters—the whites. But the white men, what naturally do they say to this? Why, what can they say or do, but that it is quite inexplicable and unpardonable, and hang up Paul Bogle directly with 400 of his comrades; whilst "the Royal West India mail steamer *Seine*, which leaves Southampton to-morrow, takes out nearly 100 tons of war material for Jamaica, with a ton of Colt's revolvers, and a number of guns for mountain artillery."

"Ah, I knew it would be so," would say the great anatomist; "there must come, when opportunity offers, this war of race with race, for our future history in this respect must resemble the past." It matters not whether it be the Deltas of the Indus or the Ganges, Australia, the Antilles, or the Cape—only one can be master, the dark races or the white. If the former, the latter will be driven out. If the latter, the former must be constantly kept down by a rod of iron, or be slowly exterminated. It may appear impolitic to say this, but there is no help for it (would reply Dr. Knox); it is the law of race—of our humanity. It may overturn the theories of statesmen, of theologians, of philanthropists of all shades—from the "broad-brimmed" professor to the dreamy essayist, whose remedy for every evil is "the coming man." The negro will be put down of course in Jamaica, and we shall polish up our revolvers and mountain artillery; and there is nothing else to be done. If we are to hold places within the tropics, it can only be as military masters lording it over a sort of serf population, and under the continual fear of whose terrible vengeance we must always live. If such be really the case, then all schemes of philanthropy and of brotherhood by Act of Parliament and stump oratory, which delude us and take us off our guard, should be at once deprecated. However, we recommend to our readers a review of what has taken place in several of our foreign possessions during the last ten years, and then an unprejudiced consideration of some of the more prominent doctrines of the "Fragment" in question.

ON THE ACCLIMATISATION OF MAN.

IN the year 1861 the present President of the Anthropological Society of London read a paper before the British Association at Manchester on that most important question of practical anthropology, the acclimatisation of man. The late Dr. Knox,* one of the most eminent anthropologists of this century, speaks of this paper as "an inquiry in which, for the first time, the great question of the acclimatisation of man has been treated scientifically in this country." This paper was printed in the reports for that year, and the President of the British Association for the following year, Professor Willis, speaks of it as one of the "elaborate and important reports" which are contained in the volume for that year. Dr. Hunt there says,—“This question has equal claims on the attention of the philosopher and the statesman.” He also observes, “I trust to be able to show that there exist the outlines of a great science which bids fair to prevent that waste of human life which has hitherto characterised the reckless policy of British colonisation.”

Dr. Hunt's conclusion is, that there is no such thing as real, permanent acclimatisation. He says (especially with regard to India) “*We have exhaustion and degeneracy, but no real acclimatisation.*”

How far the opinions advanced have been borne out by researches and discussion which have taken place since that time we now purpose to inquire. We regret to see that this subject has not yet been brought before the London Anthropological Society. No subject is more important, and few more interesting. The Anthropological Society of Paris has, however, recently devoted several sittings to a discussion of this question, and as an introduction to our future observations on the subject, we shall give a *résumé* of this discussion, which must, from its length, extend over several numbers. We shall commence with an abstract of a paper

On Acclimation and Acclimatisation. By M. SIMONOT.

The acclimatisation of man is a question still under discussion. Some look upon man as cosmopolitan; others hold that he belongs to the soil whence he sprang, and that when he transgresses certain limits, he injures his health or that of his offspring. Which of these two opinions expresses the truth? The solution of this question is unfortunately beset with two distinct difficulties; the one intrinsic, arising from the complexity of the question; the second extrinsic, arising from the confusion which encumbers its examination. It becomes, therefore, requisite to clearly define what is meant by acclimatisation. In the article *acclimatement* (Diction. Encyclopédique, etc.), M. Bertillon, following the example of his predecessor, uses the words *acclimatement* and *acclimatation* synonymously, with the sole reserve

* See “*Races of Man*”, second edition, 1862.

that *acclimatement* implies spontaneity, whilst *acclimation* expresses the intervention of art. This, M. Simonot observed, presents the double inconvenience of employing two words to express the same idea, and of confounding under the same denomination two different things. It appeared, therefore, to him more natural to call *acclimation* the accommodation of living beings to different localities, whether it be spontaneous or not, and to reserve the word *acclimatement* for the designation of the positive results of this accommodation after it is accomplished. The negative results being expressed by the word *inacclimation*.

This may appear a puerile play on words, but he was perfectly convinced that it would facilitate the solution if we were all agreed on this point: that there is *acclimation* whenever an immigrant man, by his own vital energy or hygienic arts, adapts the exigencies of his organic constitution to the influences of the new conditions into which he is introduced, whilst he can only be said to have acquired *acclimatement* (*acclimatisation*) when this immigrant man has for generations sustained himself in a thriving condition analogous to that he would have enjoyed in his native country,

Acclimation I have said is the accommodation of living beings to a locality differing from that in which they were born. The possibility of this accommodation cannot be doubted when we notice the results of the close attention bestowed by man upon animals or plants which he has displaced for the satisfaction of his wants. When we, however, consider the carelessness with which he treats himself in his emigrations, we may well ask whether he is subject to the same laws, and whether he is not really cosmopolitan. From an intellectual point of view, man may be said to be cosmopolite, not so from a material aspect. This is demonstrated daily by melancholy instances, and this question becomes the more important, in as much as the prosperity of peoples is becoming proportionate to the extent of their external relations.

Acclimation being the struggle between the media and the organisms involves a twofold necessity. On the one hand we must know the physical state of the media and their influences, and on the other hand we must appreciate the aptitudes of the organisms and their wants. The physical state of a medium is determined by its situation, its atmospheric and its telluric conditions. It is not sufficient to determine the latitude and longitude, but it is requisite also to be acquainted with the elevation and proximity or distance from the sea. The constitution of the air, the direction, energy, regularity or variation of the winds, the duration, number, and intensity of the meteorological influences of the seasons; the thermometric, barometric, electrometric, hygrometric, udometric and ozonometric conditions, deduced from an account of the diurnal and nocturnal oscillations, their maxima, minima, and media.

The telluric conditions depend upon the geological constitution of the soil; the nature, quantity, and distribution of the waters, and of numerous natural productions, of appreciable and inappreciable dimensions. These are the factors which statistics most carefully col-

lect When the term medium (*milieu*) was not yet admitted into scientific language, climatology recognised but three climates, hot, temperate and cold. To a certain extent this division of climates may still be conserved as a generic division, but it is no longer adapted to the progress of science. Each medium must now be studied individually so as to admit of their being grouped together whatever may be their geographical position. It certainly then becomes impossible that the parallel zones formerly established should accord with the lines passing through all the points, successively termed isothermic, isoclimateric, but in order to be correct they should actually be called isomésoteric.

When the media have been thus observed and classified, how will it become possible theoretically to determine the influence of any medium, and to say which media possess the same influence? . . . Given a well determined medium, it is unquestionable that there exists between its physical condition and the living beings originating in it a correlation which gives a particular stamp to physiological and pathological life. It is not less certain that if living beings foreign to this medium are introduced, an antagonism to this correlation arises, which imparts to the normal life a series of actions and reactions, the intensity of which varies, but which causes it to deviate from its primary direction, and determines a series of perturbations continuous or transitory, until between the forms and the influence that equilibrium is established which constitutes *acclimation*. Two very distinct cases may here present themselves: either the organism may *motu proprio* by its own elasticity prove sufficient, in which case the *acclimation* will be spontaneous, or, in its default, the medium must be modified and the result will be more remote, and is then *acclimation* by education.

We must here, as M. Bertillon has well observed, avoid introducing the interminable question about monogenism and polygenism, which would only encumber the problem. Whether, as M. Quatrefages observed in a former discussion, there was primarily one species whose physical condition was sufficiently pliable to admit of being transformed into existing types, or whether the human races had different origins; this much is certain, that monanthropy, if it existed, exists no more, and has been displaced by an unquestionable polyanthropy. We need not at present inquire whether any medium can transform an orthognath into a prognath, or change smooth and straight hair into a crisp and woolly wig, or transform a negro into a white, and *vice versa*. What we require to know, is the obligations imposed upon the different types by different media, in order to preserve life in its integrity.

The first elements of comparison between men were naturally the peripheric characters, stature, colour, etc. When the insufficiency of these characters to establish a methodical classification, was recognised, measurements of the skeleton, and latterly, of the cranium were resorted to. The brain also was studied, as to its dimensions, weight, the extent and depth of its convolutions. On the other hand, as regards the organs of digestion, circulation and respiration, we have as yet no exact data for comparing in the various races the capacity

and action of the intestinal canal, the spleen, the liver, the heart and lungs—all organs indispensable to life.

There exists, thus, a scientific gap, which requires the more to be filled up, as it is now an established fact that, in proportion as the inhabitant of a temperate region approaches the torrid zone, the energy of his respiratory function relaxes, and the perfect accomplishment of hæmotosis renders a greater activity of the functions of the liver and skin requisite. On the other hand, these functions become less active when man proceeds to cold countries, on account of the greater energy of the respiratory functions. This fact has been explained thus: viewing the composition of the air as everywhere the same, its rarefaction in hot countries diminishes the proportion of oxygen absorbed, whilst its condensation in cold countries is increased; the number and amplitude of the respirations remaining the same. It has therefore been concluded, that we must regulate the quantity and the nature of the alimentation according to the quantity of oxygen absorbed, in such a manner as to maintain the equilibrium between the elements of combustion and the consuming element. This observation is perfectly correct, as are also the inferences drawn from it; still we are not told why the same conditions of the air satisfactory to the Negro of Senegal are not so for the Frenchman or the Greenlander, and *vice versa*. There must, therefore, exist an organic difference between such races, which appropriates to each that medium in which he has been born. This difference remains to be discovered, and until it is so, the immunity of some and the non-immunity of other races, leave an open field to all sorts of hypotheses. . . . It is evident that if there existed a perfect identity of the organisms, all men would be liable to the same influences in the same manner, and yet we find that where the European is destroyed the negro exposes his naked body to the burning rays of the sun in a temperature of 40° Cent., and passes his nights amidst poisonous marshy exhalations. On the other hand, we see that the negro contracts pleurisy, phthisis, or idiopathic tetanus, where the European contracts dysentery, hepatitis, and dry colic. There must, therefore, obtain between them an organic difference which imparts to the functional apparatus of each a different susceptibility. In what consists this difference? This we must look for and learn if we wish to spare those hecatombs of victims which hitherto have only shewn the rarity of spontaneous acclimatation.

Are we from this rarity to conclude the impossibility of acclimatation? certainly not; this would be prejudging the progress of the future; still we may infer that acclimatation has its exigencies dependent on the media which impose on the administrative regulations indispensable modifications. Unfortunately many years elapsed before our colonial garrisons obtained uniforms suitable to the heat of the day and the cold humidity of the nights, or an alimentation adapted to their digestive faculties. At present these obligations are no doubt better understood; nevertheless, French carelessness and British egotism still continue to subordinate the interests of acclimatation to the commercial and political interests of the day.

[To be continued.]

THE

SCIENCE OF MAN IN THE BRITISH ASSOCIATION.

MUCH public discussion has recently taken place respecting the refusal of the British Association to appoint a special section for the science of man. We do not now intend to enter into the merits of the case further than to show that our position in this matter will be one of complete independence. The case appears to us to be very simple, and the issue involved not of that complicated nature which some recent discussion would lead the public to suppose.

The British Association is divided into seven departments. Supposing this number cannot be increased, should one of these sections be devoted to the science of man? The late Dr. Pritchard, and others of his day, contended that there should be a special section devoted to the study of man, and the officers and council of the Anthropological Society, also contend for the advisability and necessity of such a course. But there are others who think differently, and these, led by Sir Roderick Murchison, have up to this time been successful in their opposition. That Sir Roderick Murchison, however, should be the special opponent may be better understood from the following short explanation.

That branch of geology known under the name of physical geography was formerly most naturally in the same section as the science of which it forms but a small part. Fifteen years ago, however, geography was removed from the geological section, and hence the present dissatisfaction of all who take an interest in the science of mankind. This is a key to the whole difficulty. Anthropologists urge that the science of man cannot advance until this association with geography is severed, and without binding ourselves to support what has been done, we cordially agree to their general conclusion.

We feel it, nevertheless, our duty to state that we shall take an entirely independent course in the discussion likely to arise on this question.

We shall keep our readers informed of the discussion on this matter, so far as regards its practical bearing on the development of anthropological science, and the gradual removal of prejudice in the public mind regarding it.

The article before us contains the history of the recent attempt to obtain a special section for the science of man reprinted from the last number of the *Anthropological Review*. The attempted division of the science of man is strongly objected to, and on grounds which appear to us quite unanswerable. We have never heard one word in defence of such a course, and if this point be acceded, the discussion is at an

end, and a special section must logically be appointed for the science of man. One extract will sufficiently indicate the tone of this article :—

“One word, in conclusion, to anthropologists. The result of the Birmingham meeting of the British Association has done more than anything else to advance your cause. The press has looked on, and learnt somewhat of your position. Your cause is seen to be good ; all that is now required is patience and unity of action. We heard of several gentlemen who had solicited to be proposed as Fellows of the Anthropological Society, simply that they might more effectually assist in fighting the battle of scientific progress against the ‘rest and be thankful’ members of the Association, as well as against the clique who are fast making the British Association a family party, instead of doing all in their power to make this institution a national body.”

The following is an extract from an article in the *London Review* of September 29, in which the writer expresses similar views to those advocated in the *Anthropological Review*.

“The British Association, which can now boast of a life of one-third of a century, can hardly expect to be an exception to the general law that, with the lapse of time, all institutions require occasional modification, to adapt them to the progress of ideas—a progress which happens in matters of science to have been unusually rapid during the period of its existence. Be the reason what it may, the fact is undoubted, that the conduct and management of the Association has during recent years become increasingly an object of criticism with a portion of its members. Whether it be that the Association has failed to keep pace with the progress of the scientific mind of the day, or that it counts amongst its members a larger number of minds sufficiently independent to think for themselves, or from both these causes combined, certain it is that of late we have had an amount of dissatisfaction expressed at its proceedings which formerly had no existence. The current phrase in which this dissatisfaction embodies itself is, that the Association is governed by cliques, and we fear there is too much truth in the accusation. At any rate, no impartial spectator who witnesses its proceedings, and is qualified to judge of their tendency, can fail to come to the conclusion that, if the professed object for which the Association was originally founded, viz., the furtherance of science, is still to be kept in view as paramount to all other considerations, very serious modifications in its arrangements and mode of transacting business are desirable. * * * Another reform we would strongly urge, is the disassociation of the sciences of geography and ethnology, which never ought to have been placed together in one section. If in any case there exists a line of demarcation between the different departments of science, it is that which separates the study of inorganic matter from that of living bodies ; and that the two should ever have been docketed together, as in this instance, indicates a crudeness of ideas on the subject which it is high time for the Association to show it has outgrown. Not only, however, has ethnology been chained to a comparative *caput mortuum* in geography, but

it has been entirely sacrificed to it, for the simple reason that the Geographical Society is an older, more numerous, and more influential body than the Ethnological. No subject was ever more manifestly placed in a subordinate position, or made more completely to play the part of second fiddle to another, than ethnology with reference to geography at the meeting at Bath last year. The business of the section commenced at eleven o'clock by the reading of geographical papers which, with scarcely a single exception, were continued daily till three, when the president, who took no interest in ethnology, usually vacated the chair, leaving the room in the possession of a jaded audience and the ethnologists. Many were the complaints we heard of persons who had sat hour after hour in the hope of hearing some ethnological paper, but who were ultimately disappointed. As to the papers themselves, some, after their authors being kept waiting about day after day, were, at the eleventh hour, relegated to the Zoological, some to the Physiological sections; others were withdrawn by the authors in disgust; others 'were taken as read;' whilst, of those that were read, hardly any were properly discussed, and some not at all. With regard to these strange proceedings, which caused much comment and dissatisfaction, we heard it more than once roundly asserted that the motive of the president* in exerting his influence to prevent the separation of ethnology from the geographical section was that, knowing it to be the more popular subject, he was desirous of using it as a means of attracting large audiences, who sat out the first course of his own favourite geographical papers, waiting for those on ethnology to begin. We should be sorry to endorse this accusation, but it was very generally made. Nor were the proceedings of this section of the Association with reference to the science of ethnology, during the recent meeting at Birmingham, such as would bear scrutiny."

Here are some serious charges. We print them in the hope that they may be refuted. This article, too, is evidently not written in favour of an anthropological section, and coming from an independent source, is of more value to the general public than the special views of anthropologists themselves.

Intimately bearing on this subject, we insert the following article from the *Court Circular* of November 18, 1865.

"This is a report of the proceedings at the recent meeting of the British Association by an application on the part of the Anthropological Society of London for the formation of a separate section for the science of man; and in an appendix is republished an admirable article from the *London Review* commenting on the subject. The result of an impartial perusal of this report can lead to only one conclusion—that the time has come when the British Association requires a complete remodelling, or it must cease to proclaim as its object the 'advancement of science.'

"The study of man has only of late years begun to attract attention, though this fact does not redound much to the credit of civilisation; but the spirit of an association which declares itself an aid to the

* Sir Roderick Murchison, K.C.B.—EDITOR.

advancement of science ought to have led to an early acceptance and recognition of those who have undertaken to lead the way in this newly-opened field of inquiry. We can understand nothing more ennobling, nothing more deserving of encouragement, than a science which teaches man to know himself; but the council of the British Association think differently, and with a scornful perversity that is no credit to them, they denounce it and declare that they will have nothing to do with it. Sir R. Murchison has not raised himself in public estimation by the littleness he has shown in this matter, and Mr. Crawford has lost all claims that he could ever have had to be regarded as an impartial seeker after truth. Mr. Crawford's remarks during the proceedings were most offensive, and it would be well if this gentleman could learn that impatience in debate reflects injury not only on the debater but on his cause, while hard words can never be made to fill the place of argument. Mr. Crawford's language and demeanour were in sorry contrast with the calm and dignified tone presented by Dr. Hunt and Mr. Carter Blake.

"But this refusal of the British Association to admit anthropology into a new section has considerable importance, especially when we come to inquire into the alleged reason for such refusal. Sir Charles Lyell stated that new sections ought not to be formed, because if the scope of the British Association were to be thus extended they would not be able to find in England towns important enough and rich enough wherein to hold their meetings. So, forsooth, science is to stand still at the dictum of the 'British Association for the Advancement of Science,' because the council of that Association fears that there might be found no cities in the country worthy of their magnificent presence. Truly a very philosophic conclusion. If, however, the vanity of the British Association has so far grown beyond its merits, it is time we began to look about us for something more in accordance with the intelligence of the times. Let the British Association go its own way, which will soon be down hill, and let men of science set to work to establish a body which shall be equal to the demands of our increasing intelligence. With the British Association enclosed by its own council in a ring-fence, and with that same council arrogating to itself the duties of the General Committee, and setting a veto upon questions which were not its own, it may fairly be concluded that no great advantage can come from public support being continued to it. Such an association, to be really useful, must be comprehensive and complete, or it must be nothing. If it be not based on liberal principles it is a mere perversion of public money to encourage it, and the report now before us furnishes the strongest reason for urging the propriety of great caution before any one who really desires to promote the advancement of science should give further aid to the British Association."

We do not hold ourselves responsible for either the tone or manner in which these criticisms are written. We confess that we regret to see such language employed. We think that the authorities of the British Association should at once set to work to remove what is a seeming injustice in regard to this question. Let anthropologists on

their part give up the plea for the section to be called the anthropological section, and let the British Association at once appoint a special section for the science of man. If both parties will accede to this suggestion, they will, we doubt not, put a stop to a dispute which can do no good to either party, and is sure to damage one.

CAPTAIN BEDFORD PIM, R.N., ON THE NEGRO.*

ENGLISHMEN appear to be coming at last face to face with the black man, and will have an opportunity of forming a clearer estimate of his true nature, in which case the late sad events at Jamaica will not have occurred without at least some good result.

Impartial travellers of all nationalities are struck with astonishment at the ignorance which prevails in this country with regard to the negro—an ignorance kept up and fostered by those zealots who, compromised before they leave England to the stereotyped views and opinions of their employers, in defiance of history and fact, systematically reproduce the "Poor Negro" as debased and down-trodden from centuries of European ill-usage.

Ask Grant and Baker of the Nile, collect the opinions of naval and military officers who have served years both on the coast of Africa and the West Indies, read the travels of Park, Clapperton, Lander, Burton, and Speke, and it will be seen at a glance that the condition of the black race in their native country is a thousand times worse than that of their transplanted brethren, whether liberated or still slaves. Even at Hayti the negroes are unquestionably superior to those of their race living between the source of the Nile and the country watered by the Niger.

The unctuous sanctimony that denounces us as answerable for the degraded condition of the negro may be taken by every thinking man for what it is worth.

Many years' practical experience of the black race enables me to testify that the negro, under proper restrictions, is invaluable as a labourer, and that, with the moral and physical guidance of the white man, an advance in civilisation may be expected from him.

In common with hundreds of thousands of my countrymen, I look upon the abolition of slavery and the annihilation of the slave trade as one of the brightest acts related in English history. My father took a prominent part and lost his life in the cause, and I am connected with others who have devoted themselves to African civilisation; but I feel convinced that the bitterest enemy of the negro is the man who persistently shuts his eyes to his faults, and never ceases to thrust his time-honoured grievance before us.

But to return from generalities to the special subject under consi-

* Extracted from a letter printed in the "Times" of Dec. 13th, 1865.

deration, I wish to lay a few more "bare facts" before the public. With Governor Eyre's antecedents I have nothing to do. He may or he may not be a fallen angel, as one of the speakers at the Newcastle meeting styled him, but be that as it may, the old proverb is just as trite as ever, "Give the Devil his due," and Governor Eyre's conduct towards Gordon, in removing him from Kingston to St. Thomas-in-the-East, was in accordance with the law of Jamaica. The vigorous pursuit and punishment of the rebels have also been conducted in a perfectly legal manner, and if gentlemen who write about these matters would only make themselves acquainted with the meaning of the term "martial law," instead of filling up their letters with newspaper quotations, they would spare us the repetition of the "shame," "grief," and "indignation," with which their hearts are wrung at the summary and condign punishment visited on criminals who not only outraged all authority, but revelled in drunken orgies on a mixture of rum and human brains, and amused themselves by cutting off the fingers and otherwise mutilating the persons of those they had murdered in cold blood.

MR. McHENRY ON THE NEGRO AS A FREEDMAN.

THE negroes as freedmen will not work steadily, and the climate of the greater part of the cotton region during the height of the growing season, renders it impossible to introduce white labour. The truth is, cotton can only be cultivated extensively in the Southern States by negro labour, and negro labour can only be controlled under the semi-patriarchal system called slavery, lately existing in those States. A 'strike' in the South would imperil an entire crop. The machinery of nature cannot be suspended to await the caprice of the black 'operative.' Many of the planters and politicians of the South are as stupid on this subject as the abolitionists of the north. They argue that slave labour has been the most expensive system of labour known to the world, and they ignorantly suppose that slavery was kept up for political purposes, or in order to defy outside sentiment. They omit to consider that while slavery is, indisputably, a most expensive system of labour, that it is the only system of labour that can be used advantageously on the greater number of the cotton and rice plantations; and they likewise omit to consider, that neither for politics, nor for the purpose of 'defying the world,' could slavery have stood for a day. Slavery, it will yet be discovered by the dullest of intellects, was based upon economic laws. Could free labour, black or white, have been introduced in the cultivation of cotton and rice, it would have supplanted slave labour long since. When Jefferson, in 1776, wrote his nonsense about all men being 'created equal,' which,

* This article is an extract from a pamphlet, printed for private circulation, on the present state of the cotton trade, by Mr. George McHenry, who is so well known for his writings on this subject.

however, even he, with his wild notions, intended to apply solely to the white race, cotton was not grown in the American States except as a garden plant ; and negroes, in consequence of the previous large importations from Africa and the West Indies, were becoming so valueless—the labour market, in the States where they could be employed, being overstocked—that the further introduction of slaves was for awhile suspended, and slavery itself came very near being annihilated. The treaty of peace, 1783, however, changed this current of affairs. The refusal of Great Britain to permit the ‘thirteen independent States’ to carry on commerce, as formerly, with her possessions in the West Indies, deprived the people of those States of their accustomed source of supply for cotton. It then became necessary for the Americans to grow cotton as a crop, and the price of negroes, for this reason, greatly advanced. Slavery became, from this time, an institution ; and the plethora of negro labour in Virginia and other States began to find its way to the semi-tropical and more congenial States of the more distant South. Without slavery there can be very little cotton henceforth produced in those States ; and without the cultivation of cotton the negro must eventually disappear from the face of *that* earth. Slavery, to be sure, was continued in some of the non-cotton growing States, not for the purpose of ‘breeding,’ as is sometimes thought, but in consequence of the scarcity of white labour in those States. As a general rule, Americans of the Caucasian race do not remain labourers for more than one generation. Hence it is that the United States annually absorb a large portion of the surplus population of Europe. But of recent years the Irish and German emigrants have been attracted to the virgin lands of the West, not only on account of the cheapness and fertility of those lands, but in consequence of the new States affording a greater opportunity for more rapid political advancement than is offered by the old settled States. It was not the existence of slavery that kept emigration from steering its course to the border States. A change, however, is now taking place. The virgin lands of the West have been tapped so near the setting sun, that the value of the surplus produce, in many instances, when it reaches market, is eaten up by the cost of transportation. Political power is already established in the new States, and ‘fresh comers’ cannot now sooner acquire influence there than in the old States. The importation of guano, which is costly to obtain in the West, has improved the impoverished soil of the Atlantic States ; and, in future, under the new order of things, the emigrant, when he lands in America, will, as soon he touches the sea-board, ‘rest and be thankful.’

Long before the planting season of 1867 is reached, this question of freed labour will be fully settled in the minds of the American people, North and South. My countrymen of the Northern States are much more practical in many respects than those of the Southern States ; and although they are, in a measure, compromised to the policy of emancipation, if they become convinced that a mistake has been made, they will, I am sure, lay aside false pride, and retrace their steps. They have, perhaps, a deeper interest in the productions

of the South than the Southerners themselves. Cotton at two shillings sterling per pound is a very tempting price. Will, then, the people of the Northern States permit the negroes to remain in idleness, with cotton lands going to waste, that would, by cultivation, tend in a great degree to palliate the burden of the Federal debt, and stimulate the commerce of all the States? The people of the South are powerless in the matter, and they will therefore make no move towards re-enslaving the negroes. In fact they have already, by their new constitutions, abolished slavery. In the North slavery was abolished by legislative enactments, except in Massachusetts, and one or two other New England States, where, though it still exists by law, it was abolished by the climate, without any constitutional or legislative measures adopted for its extinction. Should, then, the people of the North elect to have cotton, the crops of 1867 will be the largest ever grown; for the quantity of labour in the cotton States proper will be greater than before the war, in consequence of the large emigration of negroes thither from the border States. The disbanding of the Federal army, too, will, with the aid of the high prices for grain likely to rule in the meantime, augment the crops of the West, so as to supply the South with food next year, and thereby enable a full share of the negro labour to be devoted to the culture of cotton.

I have said that my countrymen of the Northern States are more practical in some of their ways than my countrymen of the Southern States. This is true. The Southerners are naturally a very energetic people; but, speaking generally, they have had a weak spot in their character—they have affected indolence, and have pretended to despise Northern energy. On the other hand, the Northerners have derided what they believed to be Southern 'laziness.' Both sections have now, however, abandoned the false notions they entertained towards each other. Most of the military ability in the recent conflict was on the side of the South, and nearly all the civil ability was on the side of the North. Neither 'Stonewall' Jackson nor Robert E. Lee would have flourished in Wall Street or on Pennsylvania Avenue; and Jefferson Davis and some of his colleagues might have made a highly creditable figure had they taken to the field. The people of the South respect the civil talent of the North; the people of the North respect the military ability of the South. The men of both sections who have proved themselves to be truly great, whether in the civil or the military line, meet with the respect of the people of all the States. Third-rate men will be tossed overboard by both North and South. The war will not in the end prove itself to have been an unmixed evil, for it will morally kill off, and send back to obscurity, many of the incapable persons who had acquired power. America will henceforth demand a higher order of talent in the selection of her public men. In future, then, upon an improved state of political affairs, and upon the basis of large crops of cotton, the States will, after the immediate effects of the war pass away, resume their wonted prosperity.

I am not an advocate of slavery for the sake of slavery. I never was a slaveholder. I speak from a fair knowledge of facts, and have

perhaps studied this matter more thoroughly than the majority of my countrymen. I merely introduce the subject here in connection with the cultivation of cotton. I may say, however, that my native commonwealth, Pennsylvania, was the first State to abolish slavery, by the passage of a legislative enactment in 1780, providing for its gradual extinction. The last slave within her borders died in 1855. The Quakers have been endeavouring to 'elevate' the negro ever since 1690, but without success. In a state of freedom, the negro, with rare exceptions, sinks into the utmost depravity, and eventually becomes extinct. I have witnessed their gradual decay as slavery disappeared from the neighbourhood. Within my recollection, negroes were engaged in Philadelphia, the city of my birth, as musicians (Frank Johnson's band), sailmakers, master stevedores, etc., etc. Now, however, they are seldom employed but for the most menial service—a few mulattoes manage to hold their *status* as public waiters: and I have witnessed more wretchedness and squalidness in the 'down town' portion of that city where the negroes most do congregate, than I have ever seen in the remotest corners of the land of my ancestors—Ireland. Though I acquiesce with all sincerity in the present state of political affairs in my re-united country, I reserve to myself my own opinions upon questions of economy, as I do upon questions of religion. I may further say, that I was at Richmond when President Lincoln came there just after the evacuation of that city, and that he (Lincoln) while there expressed pretty much the same views that I do in reference to the negro race, and stated that while he would not rescind his emancipation proclamation, he believed it to be unconstitutional, and that he had no doubt but the courts would set it aside.

I observe it suggested in the Northern States that 'if the negroes will not work, we must import coolies.' The persons making the suggestion forget several significant items: one, that it would be expensive to support the negroes in idleness; another, that there is no other employment for them, than that which they have been accustomed to; a third, that it would be very costly to import a sufficient number of coolies to take the place of the negroes; and a fourth, that the Federal Congress, on February 19, 1862, passed an act, prohibiting the coolie trade, declaring that 'Every vessel engaged in such trade shall be liable to be seized at sea or in port, and forfeited; and persons concerned therein shall be liable to a fine not exceeding 2,000 dollars, and shall be imprisoned not exceeding one year.'

THE NEGROES AND INDIANS OF THE UNITED STATES.

At a recent meeting of the Paris Anthropological Society, M. Lagneau said that having been charged by the Society to give a succinct account of the Anthropological portion of M. August Carlier's works, he would now discharge that duty.

In the work entitled *De l'Esclavage dans ses rapports avec l'Union Americaine* (Paris, 1862), the author, among other interesting facts, points out the following as particularly deserving our attention. The longevity of negroes seems truly astonishing. In 2,448 slaves we find one centenarian, whilst in France we find only one centenarian in 240,000 persons. Nevertheless the mortality of the negroes though much less than at Cuba and in Brazil, increases in the Southern States in the rice and sugar plantations.

In the Slave States the proportion of slaves to the whites is, according to Mr. Tucker, approximatively $\frac{1}{10}$ to $\frac{1}{15}$. The number of free men of colour may be represented as less than $\frac{1}{18}$.

Taking into consideration the great increase of slaves who in 1800 numbered, in the Southern States, 893,041, but now in 1860 amount to four millions, even admitting that there is still a contingent furnished by the slave trade, which though officially was not effectually abolished by the acts of 1807 and 1820, it must be admitted that the African negro can perpetuate on American soil.

In the "*Histoire du Peuple Americain des Etats Unis et de ses rapports avec les Indiens*" (Paris, 1864, 2 vols.), M. Carlier divides these red savages into five groups or branches, speaking different languages. The Algonquins, the Wyandots, the Cherokees, the Mobilians, and the Dacotahs, or Sioux. The Indians are represented as men of high stature, noble gait, vigorous, hospitable, generous towards Europeans, true to their engagements, vindictive when offended, grateful for benefits received, affectionate towards their children, not deficient in eloquence, though generally taciturn, cunning, courageous, ferocious in taking revenge, stoically supporting the tortures inflicted upon them by their conquerors, and supporting themselves by hunting, and also by fishing and agriculture.

They had frequent occasions to manifest their proud and noble sentiments, in the numerous extermination wars carried on against them by settlers, in order to obtain possession of their country. The massacres of the Pequods, the Narrangansetts, the Conestagoes, and many other tribes, abundantly prove the feelings of cupidity and perfidy which animated the Europeans, whilst these savages frequently evinced noble and heroic sentiments, preferring death to slavery.

M. Boudin wished to know whether the acclimatisation of the negro is merely an assertion, or is demonstrated, for however evident the

acclimatisation of the negro on the American continent may appear, it is only due to a factitious process, by maintaining the equilibrium between the breeding and consuming States.

M. Lagneau replied that he also considered it a factitious process ; it is by breeding that the negro population has increased, despite the abolition of the slave trade.

M. Bertillon said that as his researches on the acclimatisation of negroes, have led to results different from those arrived at by M. Boudin, he requested permission to read an extract from the article "*Acclimatement*," which was about to appear from his pen in the "*Dictionnaire encyclopédique*."

Acclimatization of the Black Races in the Antilles. This acclimatization has been denied by M. Boudin. Despite the authority of this learned and industrious hygienist, we do not think that documents supported by social science authorise the negation. It is quite true that the mortality among negro slaves, and even among free blacks, is very considerable in the Antilles, that it equals and frequently exceeds the number of births. But after close examination, it appears to us that other causes than acclimatization determine this excess of mortality. It seems that the simple contact with our civilisation carries them off; in fact, it is to our civilisation that they cannot acclimatise themselves. Thus in our possession of Senegal there can be no question as regards acclimatization ; the negroes are at home there and yet the deaths always exceed the births. In the most salubrious colonial islands of the coast of Africa—in Mauritius and Réunion—the negro population also disappears. In the isles of Oceania, neither our simple contact nor the most benevolent acts of our missionaries prevent depopulation. This certainly is a strange fact. Be this as it may, in our colonies this depopulation, owing to the miseries of slavery and ignorance, is normal, and the great centres of misery and industry in Europe, present the same phenomena. It is therefore demonstrated that climate may have nothing to do with this kind of mortality.

We agree with M. Boudin that this depopulation is most marked in the English colonies, that in the French colonies there is an equilibrium maintained, whilst in the Spanish Antilles the coloured population prospers and multiplies. As regards Cuba, the documents produced by Ramon de la Sagra, permit us to analyse them ; for he separates the free from the slave population. The latter would diminish there as elsewhere, but for the clandestine importation of slaves. But the free people of colour (Negroes and Mulattoes) increases by its own forces.

The increase of this class proves its acclimatization. In 1841 the number of coloured individuals in Cuba was 153,000, according to the last census (1861) there were 232,000 of them. The same progression is observed in Porto Rico. M. Bertillon concludes therefore that the coloured African may become acclimatized in the Antilles and Southern States, when placed amidst suitable social conditions, but he cannot resist forced labour and a miserable condition of life.

M. Simonot said that he had no intention of entering upon the question of acclimatization, but he is of opinion that no confidence can

be placed in the statistics of Senegal nor of the Antilles, and that the question of acclimatisation of the negro cannot be decided by them.

M. Auburtin concurred with M. Simonot that the statistical documents mentioned by M. Bertillon cannot be relied upon.

ANTHROPOLOGICAL LECTURING CLUB.

A PROSPECTUS is before us of a new organisation under the above heading. As we believe that this document has not yet been issued to the public, we shall introduce this association to our readers in their own words :—

“The Anthropological Lecturing Club has been established to keep pace with the recent rapid progress and development of anthropological science in every part of the world. The time has now arrived when the public should be made acquainted with the practical value of the deductions of this science. The objects of the club are :—

“1. To diffuse a knowledge of anthropology, or the science of man, amongst all classes of society.

“2. To form a medium of communication between the students of anthropological science and the general public.

“3. To draw attention throughout the civilised world to the cruelties practised on the various aboriginal races; with special reference to their mitigation by the results of increased anthropological knowledge.

“4. To publish facts of practical value and utility bearing on anthropological questions important in a sanitary and social sense to colonists, emigrants, and others immediately brought into contact with savage races.

“The above statements will sufficiently indicate the scope and duties of the Anthropological Lecturing Club. This club is in no way connected with the Anthropological Society of London, and has been established for an entirely different purpose.

“It is not intended either to disseminate any special theories or doctrines with regard to the origin or the physical or mental distinctions of the races of man, or to endeavour to enlist the sympathy of the public by sentimental philanthropy, but rather boldly to tell the truth, and to illustrate the practical good which may be effected by a more general knowledge of the science.

“The recent revolutions in New Zealand and Jamaica, although arising from widely different causes, have sufficiently demonstrated the necessity for a more general diffusion of the facts at present known in relation to the psychological peculiarities of the different races of man. The force of public opinion and a knowledge of these characteristics can alone arrest the wilful extermination at present going on in many parts of the world. The cruelty of many of our European colonists, it is believed, may be greatly attributed to their ignorance of those uncivilised races with whom they become associated.

“The practical benefit which will accrue from a clear demonstration

of the relation that the different races of man should hold to each other cannot but be shared alike by the civilised and uncivilised races."

The foregoing extract gives in a sufficiently succinct manner the objects of the Anthropological Lecturing Club. We shall from time to time give reports of the lectures delivered under the auspices of the club, and we have no doubt that they will be both interesting and instructive to our readers. We shall at a future time be prepared to speak in a more confident manner than we can now do of the benefits that will accrue to science from such an organisation. We shall prefer writing of the deeds of this club, rather than to judge of its merits by its objects or professions. Much of its future success will depend on its management. We are free to confess that this club has our warmest wishes for its success and prosperity. Nay, we can hardly imagine a true scientific man who will not join in honouring any men who will boldly come forward to aid in the intellectual progress of the present time. Nor can we see any exception which can be taken to the objects proposed in the prospectus. Whether "increased anthropological knowledge" will be sufficient to mitigate "the cruelties practised on the various aboriginal races," is a point on which there may be difference of opinion; but we admire the object, even if it should fail. We are glad to perceive that this is not intended to be done by "sentimental philanthropy," and that we are promised that the unvarnished truth shall be told. Had such an organisation come before the public with the object of protecting the dark races, and especially the negro, at the expense of the white races, and especially the English, its coffers would soon have been well supplied with money.

Will not the educated thinking public now come forward on behalf of the cause of truth and justice? Is Exeter Hall always to rule public opinion on the subject of race? Are the truths of anthropological science never to be allowed to be disseminated amongst the masses of the British public?

These and a host of other questions arise when we read the above prospectus. The work which the club has undertaken is gigantic. Immediate success and prosperity it is not likely to obtain, but we do not doubt that in time it will receive the material support and sympathy to which it is entitled.

We are glad to read in the prospectus that this club is unconnected with the Anthropological Society. We believe a similar disclaimer has been also made by the Anthropological Society. The Anthropological Society, as we understand it, is especially for the students of the science, and the club is, like our own periodical, to be a medium of intercommunication between the students of anthropology and the general public.

We believe that the club has hardly yet seriously commenced operations. A few lectures have, however, been given. Mr. Richard Lee gave the first lecture at the Crystal Palace. It was very well attended, and considered to be a great success by the authorities, who were much struck by the unusual attention which the audience paid to the lecturer.

Mr. Lee confined his attention chiefly to an explanation of the scope and object of anthropological science.

We must congratulate Mr. Lee on the success of his effort, and the club on their auspicious beginning. We are glad to perceive that the lecture was free from all passion or feeling, and that it was purely addressed to the reasoning power of the audience. This is as it should be. Mr. Lee has set a good example, which we hope to see followed by those gentlemen with whom he is associated.

When a gentleman in the audience got up and stated that "the gift of speech" was a sufficient distinction between the other mammalia and man, Mr. Lee quietly commenced to state the facts on both sides. Indeed, the lecturer so fully confined himself to explanation of the science that it was quite impossible for his hearers to judge what were his own views.

Years must elapse before the general public will understand either the meaning or objects of anthropological science. We fear that some of the lecturers may be inclined to over-rate the amount of information which their audience have on any branch of the subject. We heard, for instance, the other day from a Fellow of the Anthropological Society, an account of his conversation with the landlord of a respectable hotel. The *Morning Advertiser* was in the coffee-room, and as it happened to contain an attack on the Anthropological Society, this gentleman asked what the landlord thought of the Anthropological Society, and the reply he received was, "That it was impossible England could ever get on quietly until all such Puseyites and Roman Catholics had been thoroughly crushed."

We expect that the idea possessed of the meaning of anthropology by nine-tenths of the people of England is not more exact than that of the reader of the daily newspaper to which we have referred.

In future numbers we shall print a quarterly report of the lectures delivered under the auspices of the club.

Reviews.

Memoirs read before the Anthropological Society of London, 1863-4.

London: published for the Society, by Trübner and Co. 1865.

We presume that we may consider this a specimen of what the future volumes of *Memoirs* published by the Anthropological Society are likely to be. It is in every way a remarkable volume, and one which differs so essentially from any ever published in this country as to mark an era in the history of the science of man. The volume begins with a paper by the President, "On the Negro's Place in Nature," a paper which has given rise to very much discussion. Whether the views given are correct, there can be no doubt that this paper must be studied by all who are anxious to arrive at the truth on such a momentous question. We think it a pity that such a paper was read

during the civil war in America. We are now far better able to argue the question. This paper was published in the form of a pamphlet, and dedicated to Captain Burton. That distinguished traveller has since written on the same topic, and we shall have to recur to the whole subject at some future time.

Dr. Thurnam's paper "On the two principal forms of Ancient British and Gaulish Skulls," is one of very great scientific value. The conclusions of the author are not a little startling. He says that he believes it is now established and may be formulated as an axiom, that in the tumuli of the pre-Roman period, the long barrows contain long skulls, and the round barrows round or short skulls. This at first sight, seems a little incredible, but the evidence which Dr. Thurnam has brought forward is of no slight weight as bearing out his views. The author says that this axiom is only applicable with certain limitations to France. He very justly contends "that the accurate observations, description, and measurement of skulls, ancient and modern, is everywhere to be desired before the solution of the complex problem of the origin of the different European peoples can be satisfactorily attempted. Premature attempts to reconcile the results deduced from scientific craniology, with those arrived at by philological methods, can only result in disappointment." This paper is copiously illustrated with wood-cuts and some beautiful lithographic plates.

Dr. Barnard Davis contributes a paper "On the Neanderthal Skull: its peculiar conformation explained anatomically." This memoir has given great offence to the advocates of the Darwinian theory of the origin of man in England. Up to the reading of this paper this portion of a skull from the Neander valley was the chief stock in trade of more than one of our English craniologists. We have seen many sneers at this paper; but, as yet, its arguments are unanswered. Dr. B. Davis's conclusion is that the form of this fragment of a skull "is owing to an abnormal development, which is not, and cannot, be considered a race character at all," and that the same thing is found in different degrees among all races of man.

Mr. W. T. Pritchard gives an account of the inhabitants of some of the Islands of the Pacific, and considers that the principal races are now all more or less mixed. In this paper there is an interesting account of some involuntary migrations, and there is, perhaps, the best illustration of such occurrences which have come down to us.

Mr. Bollaert contributes three most elaborate papers, all bearing on the anthropology of the new world. We understand that the author is continuing his labours, and when the series is complete we shall recur to this subject. In the meantime we will only say that the author is doing good service by bringing all his facts together, as this will greatly assist in the elucidation of the great subject of which they treat.

Captain Burton has a short paper on some curious customs amongst the people of Dahome in West Africa. It is in this paper that Captain Burton first made use of the expression that the Anthropological Society was "the refuge for destitute truth".

Mr. Bendyshe commences a most admirable history of anthropology.

This portion occupies one hundred and twenty pages, and is replete with information of a most valuable nature. We trust that Mr. Bendyshe will go on with the labour he has so well begun, and for which he is so eminently fitted. For the present we must conclude our notice of this volume with one extract from Mr. Bendyshe's "History":—

"The rise of anthropology into a science has necessarily been very slow; but the gradual steps by which, at last, it has arrived at recognition and become a systematic study, are of great interest. I propose to trace this progress from the earliest times, and to show how anthropology—which, at its outset, was embarrassed with speculations on the origin of all things—has gradually become disentangled from the smaller sciences, which have been carved out of it, and through which still lies the path to some of the generalisations, by means of which alone it can be carried to perfection, until at last it stands no risk of being confounded with any other department of knowledge, excepting that of ethnology,—the essential difference between which and itself is becoming more clearly understood every day."

GUSTAVE D'EIOHTHAL—*De l'Usage pratique de la Langue grecque.*
Paris: Hachette. 1865.

IN this work the learned author advocates the adoption of the Greek language as a medium of international communication. He calls prominent attention to the facts that since the fall of Constantinople the Greek refugees rendered an immense service to the west by transmitting to it the Hellenic language and literature. The modern world has had three great educators, Israel, Greece, and Rome. The fall of Constantinople in the fourth century placed western Europe in direct relation with the Greek spirit, as a little later the expulsion of the Israelites from Spain and Portugal, the Reformation, and the diffusion of the Bible, infused Hebrew traditions into the mind of the vulgar. Extolling in no measured words the importance of the influence which Greek thought has had upon the European mind, he pleads strongly for its more general inculcation amongst the young. The advantages which obtain by the maintenance of Latin as a common dialect amongst the learned will, he considers, be heightened by the substitution of the Greek language. There is much in this little pamphlet with which we agree, however we may dissent from him regarding his proposed abrogation of the Latin language as the appointed and recognised medium of international communication amongst the learned—a duty which the French language cannot fulfil.

The Real Wants of the Irish People. By a Member of the Statistical and Social Inquiry Society of Ireland. Dublin: 1865.

THE present time affords ample opportunity of studying the psychological characteristics of the Irish people. The pamphlet before us professing to treat on the real wants of the Irish people may interest those who wish for a specimen of Irish logic. From beginning to end we cannot find out what these wants are; that point is left untouched.

There is much good sense in the essay, mixed with a very large quantity of rubbish. As a specimen of the former we make the following extract :—

“The greatness of a nation depends in the first place upon the mental and moral endowments of the general mass of its people, and in the next upon its fertility in the production of eminent leaders, whether of the intellectual or the practical type. In the latter respect our deficiency is perhaps even more remarkable than in the former. Our dearth of exalted leaders of the very highest order is a very extraordinary feature in our history. Our patron Saint was a native of Scotland. We have long relinquished any claim to the renowned Duns Scotus. The Hon. Robert Boyle was English both in parentage and education. The noble Bishop of Cloyne was our prince of moral philosophers ; yet even he devoted the giant strength of his intellect to the establishment of a doctrine which has hardly made a single convert since its promulgation. We are probably the most religious people in Europe, yet, from the days of St. Patrick to the present time, no great prophet or religious Reformer, no Moses, or St. Paul, or St. Augustine, or Fenelon, or Bossuet, or Luther, or Calvin, or Knox, or Swedenborg, or Wesley, has ever risen up amongst us. With the one exception of Berkeley, our philosophical annals supply no name which can legitimately rank with Plato, and Aristotle, and Archimedes, and Aquinas, and Galileo, and Kepler, and Descartes, and Grotius, and Bacon, and Leibnitz, and Newton, and Locke, and Butler, and Hume, and Smith, and Kant, and Laplace, and Humboldt. Our literary ranks include many poets and prose writers of world-wide reputation ; yet even the brightest of these—our Swift, and Goldsmith, and Moore—grow pale before such master-spirits as Homer, and Æschylus, and Sophocles, and Dante, and Cervantes, and Molière, and Shakespeare, and Milton, and Schiller, and Goethe. In the fine arts we cannot enter into the most distant competition with the countries which produced a Phidias, a Michael Angelo, a Raffaele, a Titian, a Rubens, a Rembrandt, a Hogarth, a Turner, a Wren, a Mozart, a Beethoven, or a Handel. In the constructive and industrial arts we have never had a Caxton, a Brindley, a Watt, an Arkwright, or a Stephenson. Even in the more congenial pursuits of war and government, though we can boast of many splendid soldiers and political orators, yet with very rare exceptions they have lacked that marvellous capacity for controlling and inspiring the minds of inferior men, which is indispensable to the highest order of consummate statesmanship. Even Burke, with all his affluence of genius and of erudition, failed in this. The Duke of Wellington, though he shared few of our characteristics, and was little of an Irishman in any sense, was probably the ablest practical statesman who was born amongst us since the days of Brian Boru. We may elsewhere search in vain throughout our sad history for any general or public leader like Themistocles, or Philip of Macedon, or Alexander, or Hannibal, or the Scipios, or Cæsar, or Charlemagne, or Alfred, or Gregory VII., or William of Normandy, or Gustavus Adolphus, or Cromwell, or Peter of Russia, or Frederick the Great, or Washington, or Buonaparte.”

Notes and Queries.

Australasian Aborigines.—Extract of a letter from James Bonwick, Esq., St. Kilda, Melbourne, dated Oct. 25, 1865, to James Hunt, Esq., President of the Anthropological Society of London:—"Bishop Pattison, of the Melanesian mission, said in his sermon last Sunday, that, though he saw no necessity for the disappearance of the black before the white, yet such was the result of their intercourse; and it grieved him exceedingly, as a missionary bishop, to see the apparent fruitlessness of effort among these islands. He then referred to the melancholy decline of the New Zealanders, and their renunciation of Christianity for the stupid heathenism of Pai Marire. He, of course, had to complain of the character of teachings, and the want of judicious training. He urged us here to look after our own blacks, and believed in their capacity for religion. This I doubt, I am sorry to say. I see no hope of their so-called civilisation and Christianity. *We do not improve them.* There are those here who are obliged to acknowledge the force of your arguments."

The Committee of Section E.—Will some of your readers inform me if the report is true that Mr. Crawford refused to put a motion to the committee of Section E, which had been duly proposed and seconded? It is reported also that he did the same thing at the Newcastle meeting when in the chair. Can any of your readers vouch for the accuracy of these facts?—FAIR PLAY.

Polygeny and Polygamy.—The Reader asks if the statement in the *Anthropological Review* of October last, respecting the confusion existing in the minds of some members of the British Association respecting the meaning of the two words Polygeny and Polygamy can be true? Will you kindly answer this question?—H.*

Gaboon Exploration.—The following letter has been received from Mr. R. B. N. Walker, detailing the progress which that traveller has made:—

"Gaboon, W. A., August 23, 1865.

"In a few days I start on a short trip on the south side of the river Myasms, having fortunately come to land, and on my return from that trip I shall make a fresh trip, and make a push for the interior.

"A ship will sail for Liverpool in a month or six weeks, and by her I shall forward such objects as I have collected for the Society's museum, and trust they come safely to hand. Skulls I have not yet succeeded in obtaining, but I hope that my little excursion will enable me to procure a few.

"The French Admiral has just started on an expedition against the Ba Fau. If I can procure skulls, skeletons, or arms, I shall send them for the museum.

"Very truly yours,

R. B. N. WALKER, F.A.S.L."

* We can only refer our correspondent to the official report of Mr. Blake, in the current number of the *Anthropological Review and Journal of the Anthropological Society*.—EDITOR.

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ON ABORIGINAL SAVAGE RACES OF MAN.*

MODERN colonisation has developed a new feature in human affairs, the immediate juxtaposition of the most highly civilised with the most savage races. Antiquity knew nothing of this. The Greeks and Romans never saw anything lower than barbarians. They were never face to face with men of "the stone period." It needed the progress of another two thousand years to bring the musket and the tomahawk, the rifle and the boomerang, into direct conflict. Only by faint tradition, and at many removes through travellers' tales, were ichthyophagi and anthropophagi known, even remotely, to the writers of classic antiquity. The successive grades of culture were then geographically shaded off, the two extremes never coming into direct contact. It needed such an improvement in navigation as would permit the circumnavigation of the globe, ere the latter result could be produced. And the fact that it has been achieved, indicates that humanity has arrived at another and a higher stage of development than was ever before attained. By it the past is superannuated, and the future opens a new field of ethnic experience to mankind.

"The extinction of races" is, no doubt, a recurrent fact, of which archæology affords ample demonstration. In "the struggle for existence," the weak go down. It always was so. It is, perhaps, best that it should be so. At all events, it is a stern necessity that must be accepted, and against which it is in vain to protest. The refinement of an advancing civilisation, reinforced even by the mild precepts of Christianity, seems utterly inoperative for its prevention. Never was the advent of the civilised man more destructive to the unfortunate savage than in this nineteenth century. The arrival of the former is simply the death-warrant of the latter, who perishes as by a law of nature. All this is, no doubt, very melancholy, especially in the process; although its result, as in the case of all natural laws, will, beyond question, be beneficial.

* "Aborigines of Australia". By Gideon S. Lang, Esq. Melbourne: Wilson and Mackinnon.

Such phenomena should make the advocates of the *unity*, and especially of the *equality* of all races, pause in the course of their fluent argument. Here is the world-wide fact, that the savage hunter is irreclaimable by the civilised man ; that he perishes in the process of improvement, and dies out in the act of transition. It is, of course, comparatively easy to go into the details of this miserable process, and with weak but well-meaning philanthropy object now to the shooting down, and then to the rum bottle, and anon to the terrible diseases which we introduce among primitive peoples ; but after all, the sombre fact remains, that they disappear, and after a few generations of occupation by the superior type, are nowhere to be found.

Such melancholy facts are suggestive of grave reflections to the anthropologist. Are there savage races, that is, types of mankind, who from structure, temperament, and their accompanying mental qualities, are fitted only for the savage state of existence, with its wild impulses, its unrestrained passions, its imperfectly developed moral sentiments, and its almost utterly neglected intellectual faculties ? Are not such human beings akin so far to certain species of animals, that practically defy domestication. They are formed for the wilderness, and die when it is reclaimed. Their habitat is in the prairie and the forest, not the field and the city. They are constituted for a certain environment, and expire when removed from its bracing and healthful influences.

We do not yet know what civilisation really implies in relation to the physique of mankind. There is no question that the cranial, and with it the cerebral type of civilised men, is different from that of savages. But is this the sum total of the elements of differentialism ? Are there not also diversities in the volume and power of the viscera, in the disposition of the bones and muscles, and in the character and action of the skin ; and as a necessary accompaniment of all this, is there not considerable difference between the corporeal functions of the hunter, the nomad, and the agriculturist, more especially when the latter is of high Caucasian type ? These are important questions, of which we are only in the early process of obtaining a satisfactory solution. We want a comparative anatomy of man. We want men of the highest medical and surgical attainments, who, like Dr. Pruner Bey, have enjoyed the enviable privilege of residing among alien races, to give us the results of their experience. Hitherto this has been done very imperfectly ; and, in the case of many races, has not even been attempted, so that as yet we have received but the first instalment of such knowledge. Enough, however, has been accomplished to show us that racial diversity is not confined to the externals of form and colour, but extends also to internal structure, and of course to function, whether in health or disease. Now if this be so, then by civilising the savage we place him in an unnatural condition, one unsuited to his organisation, and for which he is not constituted either in body or mind. Can we, then, wonder at the result ? Is not his ultimate disappearance unavoidable, whatever may be the processes employed for its accomplishment, and however virtuous and well-disposed may be the colonists with whom he comes in contact ?

We are aware that these are doctrines not likely to commend themselves very readily to the favourable consideration of "aborigines protection societies" and other philanthropic bodies, whose anthropology is much too sentimental for the admission of such stern facts or such unpleasant conclusions. Neither will our various missionary societies readily tolerate statements and opinions so opposed to their favourite processes of conversion and Bible civilisation. They have accepted, as a matter of faith, that "the heathen" are a part of the inheritance of Christ; and without more ado, they proceed to gather them in. But, alas! to sheep of this character, even the best managed fold is little better than a polite slaughterhouse. They are baptised unto death. They are numbered with the elect, to their temporal destruction. That Christianity is a Caucasian faith, seems never even to have been suspected by the members of either our Catholic or Protestant propaganda, who accordingly will doubtless regard even our allusion to such a fact, as an instance of glaring and shameless impiety. Well, we can only say missionary enterprise is an experiment upon a grand scale to test the possibility of diffusing the ideas of one race of men among those of another; and while within certain limits this is no doubt possible, there are, we have no hesitation in asserting, ethnic demarcations so wide, that to overstep them is practically impossible. Buddhism, the product of Iranian intellect, has been accepted as a native faith by the Mongolic populations, both nomadic and civilised, of north-eastern Asia. And it would seem that the faith of Islam is achieving a victory of the same kind in northern Africa. But apart from the consideration that there is a remote ethnic relationship between the Indo-European branch of the Caucasian stock and their far off kinsmen the Mongols, and a similar relationship, as of flower to root, between the Semites and the Negroid races, it is observable that neither of these comparatively exalted creeds has yet been extensively diffused among absolute savages. The ichthyophagous Mongols of the Asian shores of the Polar Sea are still followers of the rites of Shamanic sorcery, while Mohammedanism has made no progress among the Oceanic Negroes of the Indian Archipelago, and the ethnically related groups still farther east.

Both the Flora and Fauna of Australia point it out as a peculiarly characterised area. In a sense, it is older than America, as America is older than Europe, Asia, and Africa. Its living types are elsewhere archaic, that is, fossilised. Its quadrupeds are still marsupial. What, then, are its men? Socially, they are still at the stone period. They have the spear, but not the bow. They have the hut of interwoven boughs, but not the tented wigwam, which can be struck and carried from place to place. There are gradations even among savages. The Indian of North America would regard an Australian with a degree of pity bordering on contempt. And, perhaps, justly so. His canoe and his mocassins proclaim that he is the pupil of a more advanced school. We know nothing of the chronology of savage progress, except that it seems to have been inconceivably slow. From the Australian boomerang to the American bow, may imply a gulf of ten thousand

years, nay, for aught that we know to the contrary, may, perhaps, imply not simply historic, but geologic time, like the corresponding transition from marsupial to placental organisation in the quadrupedal sphere.

Australia is the great *southern* continent. Do we yet know what this means? Are the telluric influences alike on both sides of the equator? Is not the northern hemisphere preponderantly positive, and the southern as predominantly negative? And, as a result of this, do not animate types in the former tend to cerebral and thoracic development, while in the latter they as persistently tend to the lumbar and abdominal? And is not this equivalent to saying, that the first are essentially masculine, and the second feminine in their organic proclivities and profounder characteristics? And here, again, by going south, do we not find that we are going back to the archaic types of our own hemisphere, and of our own continent? What, functionally regarded, is the advance of organisation from the zoophyte to man, but the gradual development of cerebration and respiration, accompanied by a corresponding and proportionate diminution of alimentation and reproduction? The line of advance is so obvious, that its direction cannot be doubted. As anthropologists, have we yet given these matters due consideration? Is it to be supposed that influences productive of such results in the animal are without effect in the human sphere? But it is, perhaps, time that we should advance to the details and specialities of the interesting brochure before us.

Mr. Lang has at least one important prerequisite for writing on the Aborigines of Australia, and this is a prolonged and intimate acquaintance with them. He has resided in the colony twenty-four years, eleven of which were passed in the bush. He is familiar with outstations. He knows not only the manners and customs of the natives, but in a certain sense, even their habits of thought. And what he knows he communicates in a pleasing style, without needless preface or circumlocution. He writes like a man by no means ignorant of books, and yet familiar with the saddle. He has the personal experience which literary men generally want, and he has the literary attainments of which enterprising travellers are often devoid. As anthropologists, we could have wished he had been better posted up in some of the elements of our own science; and yet, perhaps, it is better as it is, for if he has little knowledge, he has the fewer prejudices and misconceptions. He has no favourite theories to support, no hostile hypothesis to subvert. A plain, practical, and keenly-observant man, he sees the fact in Nature, if not with the precision of science, at least without the distortion of a learned ignorance. Such a communication is therefore, it need scarcely be said, eminently valuable. By it we are enabled to look at the Australian aborigine through the eyes of an experienced settler, and see him as he is presented to the great flockmasters, their overseers and shepherds, on the sunny plains and verdant uplands of the southern world.

We have said that Mr. Lang has no theories to support—we mean of a scientific character. Socially, he is an enthusiastic partisan of philanthropy to the natives. His lecture is a powerful appeal to the

home government to interfere between the government of Queensland and the aborigines—in favour of the latter. Ever a most doubtful policy. Of necessity an extreme measure. Of all the forms of centralisation, that which would hamper the deliberations of a local senate, and restrict the action of a local executive in another hemisphere, on a matter of such detail as the organisation and duties of their frontier police, is assuredly, upon the very face of it, one of the most monstrous and extravagant. That our representatives in St. Stephen's and our ministers in Downing Street, who individually and personally know no more of Australian life and its requirements than any other body of equally educated English gentlemen, should be thus called upon to summarily paralyse the action of a colonial legislature and responsible ministry, in a matter of such vital moment as their dealing in peace and war, with a body of some thirty or forty thousand rather formidable, if not hostile natives, looks ill for the well-intentioned yet spurious philanthropy which is compelled to demand it. Mr. Lang's appeal is to the wrong court. If his charges of wanton cruelty can be substantiated, they need not be sent across the ocean to people who have not yet heard the other side; they should be duly promulgated in Australia, and not simply in Australia, but more especially in Queensland, the immediate theatre of these terrible outrages. Perhaps it will be said that by the delivery and publication of his lecture he has done this. But why, we say, couple with this, his unwise demand for interference on the part of the home government? Does he despair of the force of public opinion in Australia? Are the people of Queensland so devoid of all moral principle, so utterly and hopelessly brutalised, that he can expect from them no influence on their legislature, no action on their executive? Why seek to remove his cause to so distant a judicature? Or is his appeal, not in reality to Downing Street and St. Stephen's, but to Exeter Hall? Is it a sounding of the "drum ecclesiastic," to call the hosts of one-eyed philanthropy to the rescue, involving an appeal from the practical experience of Queensland to the fanatical ignorance of Britain?

It seems there have been two very opposite systems of dealing with the natives, pursued in Australia; the one, that of the extreme philanthropists, who regard "the poor blacks" as innocent children that can do no wrong, and who must be shielded from punishment as irresponsible beings, under all circumstances; the other, that now prevalent in Queensland, which is obviously a reaction from the former, where practically there is no law for their protection, and each individual squatter defends himself and clears his "run," by dispersing the natives at his own discretion, assisted when necessary by the mounted police, consisting largely of native troopers, officered by European inspectors and sub-inspectors. In place of this, Mr. Lang proposes a medium plan, the main feature of which is the appointment of local magistrates under the name of curators, who may superintend the intercourse of the whites with the blacks, and without whose sanction no attacks on the latter are to be permitted, except in strict self-defence on the part of the settlers. Of the merits or demerits of

Mr. Lang's plan, it is of course impossible for us to speak at this distance. If adopted in full, it would be simply a new frontier police bill for Queensland—that would be evaded every day, if found unsuitable to the actual state of the country.

But the main feature of our Australian colonisation in relation to the aborigines is still left untouched—we mean their ultimate preservation or extinction. Whether, under the nursing of the most maudlin philanthropy, or the ruthless cruelty of border squatters acting on their own responsibility, it seems that they equally perish, the blanket of the former system being as deadly as the rifle of the latter. Here is what Mr. Lang says under this head:—

“WHY DO THEY DIE?”

“It may be asked, how is it that, if the aborigines derive such substantial advantage from intercourse with white men, they always die out and disappear after the arrival of the whites? It is generally supposed to be from the diseases and drinking habits contracted from those who ought to be only the pioneers of civilisation; and no doubt both of these influences help to hasten the end. In point of fact, however, they suffer from no disease except small pox, that did not prevail among them previous to the coming of the white men; and as for drink, they die almost as rapidly whether they become addicted to it or not. The real cause of their gradual extinction is—pulmonary disease—which, although but too destructive before, has been fearfully aggravated by the introduction of the European blanket and clothing, which although, of course, intended for their comfort, their own thoughtless mismanagement renders fatally destructive. While constantly exposed to the weather, in their natural state, their skin and nervous system were in a great measure adapted to it; but after they got European clothing and blankets, they became about as unfit to bear exposure to the cold as the white men themselves. But they continued as careless as ever, frequently walking about naked, and at night sleeping uncovered. The natural result of recklessness like this is, that they catch cold, and die. Nearly all the squatters, at some time or other, adopt black boys, keeping them as ‘tigers’ or horse-breakers; and on cattle stations there are generally several, who are particularly valuable as stockmen. But in spite of all the care that can be taken of them, they almost invariably die before twenty years of age. While mere boys, they do very well, and nothing seems the matter; but when they become young men, and wish to ‘shew off’ before the girls of the tribe they belong to, they visit the camps, when they are on or in the vicinity of the station, wish to prove that they are as good blacks as ever, strip off their clothes, native fashion, and as a matter of course catch cold and die.”

“The substantial advantage,” to which Mr. Lang here alludes, is, it appears, the *iron* in place of the stone tomahawk, by which the happy natives are enabled to climb the gum trees and get more “possums” than before! This, and similar twaddle, would be simply ridiculous, were it not also unutterably melancholy. The man who talks of “the substantial advantages” which the aborigines

derive from their intercourse with the colonists, must either be indulging in a polite euphuism, or he has not grasped the grander elements of the problem. Whatever system we adopt, it appears that our advent is their destruction. There may be diversity in the processes, but none in the result.

To us, as anthropologists, the most valuable portion of Mr. Lang's lecture is that in which he describes the customs and conditions of the natives in their aboriginal condition, and with a few extracts from this we must conclude our already too lengthened notice:—

"Every tribe occupies its own territory, which is as distinctly defined as any estate in England, and is on no account encroached upon by any stranger, unless upon pain of death; and I have known death to be inflicted in such a case without the smallest hesitation or compunction. Each tribe is separate and distinct, and, unless in a pressing emergency, intercourse takes place or meetings are held by any two or more tribes, only after preparations and arrangements as careful and punctilious as those between two German Principalities.

"This tribal right to exclusive occupation is, however, modified in certain cases for the benefit of the tribes generally.

"When certain articles of food, material for weapons, or the like, are produced in any particular locality, there are general laws giving all the tribes authority to resort to the place, without offence either to the tribe permanently located there, or to those through whose country it is necessary to pass in order to reach it. As an illustration of this, I may mention the bunna-bunna pine ranges in Queensland. The bunna-bunna pine produces a very large cone, once in every two or three years, and all the tribes, from a great distance around, flock to it in the proper season. There is also the *nurp*, a sort of strawberry, which grows in large quantities over the sand-hills on a run which I took up on the Glenelg. All the neighbouring tribes had the right to go there, and did so in large numbers when the fruit was in season. A hill in the interior of the Sydney district, which produced a very hard stone, peculiarly suitable for the manufacture of stone tomahawks, was the subject of similar regulations; and so was a certain quarry of sandstone, at St. Kilda, near Melbourne, which was peculiarly adapted for grinding down and sharpening the stone tomahawks.

"Any casual visitor to a tribe in its native state, seeing their everyday life, under the favourable conditions of fine, warm weather, abundance of food, and no war or blood-feud on hand, would be inclined to believe that the descriptions given by the poets of the freedom and happiness of the savage in his natural condition were something like reality. The blacks are then assembled in considerable numbers, the men hunting or fishing for a few hours each day, the women collecting yams, grubs, or other food in season, and all coming to camp in the evening, to enjoy endless gossip and occasional corroborees; and frequently some skilful story-teller recites in a loud, peculiar tone, either a gallant fight or a hunting adventure, collecting around him the delighted young people of the tribe. But see them in cold, rainy weather, with food scarce. Then they are the very picture of wretch-

edness and starvation, for nothing short of starvation will induce them to face the wintry rain ; and I need scarcely say that the greatest sufferers are the women and children, who obtain, in such circumstances, only what has been left or rejected by the men. Upon a closer examination of their laws and customs, it is soon perceived that the existence of the Australian aboriginal is morally as well as physically remarkable for nothing so much as its unmitigated wretchedness."

It seems that cannibalism is frequently practised, not only on their enemies, but even on the young and defenceless members of their own tribe :—

"In the Maranoa district, as I was told by the blacks themselves, when a woman was left a widow with children, it was a common practice with the old and chief men, to inveigle away the children during her absence, and feast upon their bodies. The mother on returning and missing the children, would of course follow the track, and in spite of all precautions, when any were taken, seldom failed to discover what had occurred ; but if she ventured to make much noise about the affair, the old villains would tell her that she had better keep quiet, or else they would eat herself too. This council can, at any time, order any of the warriors of the tribe, to perform any particular duty ; and so far as I have been able to ascertain, their orders are invariably obeyed, without the slightest hesitation. In every case where a white man is to be murdered, the favourite blackfellow of the victim is selected to do the deed, as having the best opportunity for doing it without danger ; for whether attacking whites or blacks, their main object is to gain as much as possible with the least possible risk, having no idea of what we term fair play."

We occasionally hear of missionary enterprise among these unfortunate people. The following narrative, given as a part of Mr. Lang's personal experience, casts rather a lurid light on such matters, and may perhaps induce some of us to ask how far the "conversion" of such creatures is either possible or desirable. It is given under the head of "witchcraft" :—

"About eighteen years ago, when upon an overland journey, I remained for some time at Mr. Templar's station, Nanima, near Wellington, in New South Wales, where there had been for many years, and until some three years preceding my visit, a party of Moravian missionaries, who had been very successful in civilising the blacks. They had taken charge of the natives, almost from infancy, and trained them up apparently free from the vices and barbarities of the tribes. While at Nanima, I constantly saw one of these blacks, named Jemmy, a remarkably fine man, about twenty-eight years of age, who was the 'model Christian' of the missionaries, and who had been over and over again described in their reports as a living proof that, taken in infancy, the natives were as capable of being truly Christianised as a people who had had eighteen centuries of cultivation. I confess that I strongly doubted, but still there was no disputing the apparent facts. Jemmy was not only familiar with the Bible, which he could read remarkably well, but he was even better

acquainted with the more abstruse tenets of Christianity ; and, so far as the whites could see, his behaviour was in accordance with his religious acquirements. One Sunday morning, I walked down to the blackfellows' camp, to have a talk with Jemmy, as usual. I found him sitting in his gunyah, overlooking the valley of the Macquarrie, whose waters glanced brightly in the sunshine of the delicious spring morning. He was sitting in a state of nudity, excepting his waist-cloth, very earnestly reading the Bible, which indeed was his constant practice ; and I could see that he was perusing the Sermon on the Mount. I seated myself, and waited till he concluded the chapter, when he laid down the Bible, folded his hands, and sat with his eyes fixed abstractedly on his fire. I bade him 'Good morning,' which he acknowledged, without looking up. I then said, 'Jemmy, what is the meaning of your spears being stuck in a circle round you?' He looked me steadily in the eyes, and said, solemnly, and with suppressed fierceness, 'Mother's dead!' I said that I was very sorry to hear it. 'But what had her death to do with the spears being stuck around so?' 'Bogan blackfellow killed her!' was the fierce and gloomy reply. 'Killed by a Bogan black!' I exclaimed ; 'why your mother has been dying for a fortnight, and Dr. Curtis did not expect her to outlive last night, which you know as well as I do.' His only reply was a dogged repetition of the words, 'A Bogan blackfellow killed her!' I appealed to him as a Christian—to the Sermon on the Mount, that he had just been reading ; but he absolutely refused to promise that he would not avenge his mother's death. In the afternoon of that day, we were startled by a yell which can never be mistaken by any person who has once heard the wild war-whoop of the blacks when in battle array. On rushing out, we saw all the blackfellows of the neighbourhood formed into a line, and following Jemmy in an imaginary attack upon an enemy. Jemmy himself disappeared that evening. On the following Wednesday morning, I found him sitting complacently in his gunyah, plaiting a rope of human hair, which I at once knew to be that of his victim. Neither of us spoke ; I stood for some time watching him as he worked with a look of mocking defiance of the anger he knew I felt. I pointed to a hole in the middle of his fire and said, 'Jemmy, the proper place for your Bible is there ;' he looked up with his eyes flashing as I turned away, and never saw him again. I afterwards learned that he had gone to the district of the Bogan tribe, where the first black he met happened to be an old friend and companion of his own. This man had just made the first cut in the bark of a tree, which he was about to climb for an opossum ; but on hearing footsteps, he leaped down and faced round, as all blacks do, and whites also when blacks are in question. Seeing that it was only Jemmy, however, he resumed his occupation, but had no sooner set to work, than Jemmy sent a spear through his back, and nailed him to the tree."

This is followed by some remarks on their "intellectual capacity," of which Mr. Lang seems to have formed rather a high estimate, but from the instances which he adduces, we can only conclude that they are very astute and keenly observant *savages*. Their ability to

follow the trail of a tribe or an individual, and their recognition of the latter by his footsteps, even in the sand, and their skill in building a native hut of branches, which it appears no European has yet been able to accomplish satisfactorily, only place them on a level with the dog and the bird ; while their construction of a large weir is rivalled by the achievements of the beaver. Had they learned how to build a log hut, or to keep flocks and herds, or to sow and reap corn ; had they shown an ability to depart from their traditional habitudes of thought and action, and to adopt in their place, however imperfectly, the higher modes of life introduced by the colonists, there would have been some hope for them ; but of this they seem utterly incapable, and therefore their doom is sealed. The only highly intellectual operation of which they seem capable is the getting up a native opera or corroboree, of which the author furnishes us with the following graphic description :—

“There were over five hundred natives in the assemblage. The stage consisted of an open glade (which I afterwards visited), surrounded by a belt of rather thick timber, about two hundred yards in length and breadth, narrowing towards the south end, across which sat the orchestra, consisting of nearly a hundred women, led by Eaglehawk himself. The leader chaunted a description of the scene as they passed, accompanied by the women, their voices continuously repeating what seemed to be the same words, while they beat time by striking with a stick a quantity of earth, tightly rolled up in a piece of cloth or opossum rug. The moon shone brightly, lighting up the stage and the tops of the trees, but casting a deep shadow below. This shadow, however, was again relieved by several large fires on each side of the stage, leaving a clear view to Eaglehawk and the orchestra, behind whom stood the spectators, the whites being in the centre. The first act of the corroboree was the representation of a herd of cattle, feeding out of the forest and camping on the plain, the black performers being painted accordingly. The imitation was most skilful, the action and attitude of every individual member of the entire herd being ludicrously exact. Some lay down and chewed the cud, others stood scratching themselves with hind feet or horns, licking themselves or their calves ; several rubbing their heads against each other in bucolic friendliness. This having lasted for some time, scene the second commenced. A party of blacks was seen creeping towards the cattle, taking all the usual precautions, such as keeping to windward, in order to prevent the herd from being alarmed. They got up close to the cattle at last, and speared two head, to the intense delight of the black spectators, who applauded rapturously. The hunters next went through the various operations of skinning, cutting up, and carrying away the pieces, the whole process being carried out with the most minute exactness. Scene the third commenced with the sound of horses galloping through the timber, followed by the appearance of a party of whites on horseback, remarkably well got up. The face was painted whity-brown, with an imitation of the cabbage-tree hat ; the bodies were painted, some blue and others red, to represent the shirts : below the waist was a resemblance of the mole-

skin trowsers, the legs being covered with reeds, tied all round, to imitate the hide leggings worn in that district as a protection against the brigalow scrub. These manufactured whites at once wheeled to the right, fired, and drove the blacks before them; the latter soon rallied, however, and a desperate fight ensued, the blacks extending their flanks and driving back the whites. The fictitious white men bit the cartridges, put on the caps, and went through all the forms of loading, firing, wheeling their horses, assisting each other, etc., with an exactness which proved personal observation. The native spectators groaned whenever a blackfellow fell, but cheered lustily when a white bit the dust; and at length, after the ground had been fought over and over again, the whites were ignominiously driven from the field, amidst the frantic delight of the natives, while Eaglehawk worked himself into such a violent state of excitement that at one time the play seemed likely to terminate in a real and deadly fight."

But this is simply the war and hunting dance of the North American Indians; and, however admirably designed and performed, affords but slight evidence of any inherent capacity for civilisation.

This subject of savage life deserves far profounder consideration than it has yet received. We have not yet outgrown the influence of the theological school of thinkers on such topics. We are still haunted with the idea that the savage is only an *uncultured* type of the civilised man, and consequently we are always trying a variety of nostrums to civilise him. We think he may be *school*ed into civilisation. The dogma of aboriginal unity still clings to us, and prevents our reasoning, by the foregone conclusions to which it of necessity leads. In the animal sphere we readily admit that there are both birds and beasts that practically defy domestication, and yet of which we occasionally see a moderately well-tamed exceptional individuality, which, however, only helps to prove the rule. But we are backward in applying this principle to man. And the reason that we are so is, because we have already assumed his possible domestication, in all his manifold varieties. We cannot come to the solution of this problem inductively, because our minds are already filled with the idols of *à priori* assumptions. And so, when we get an Indian into broadcloth, or an Australian into uniform, we think the great experiment of civilisation has been successfully accomplished, and that our "travelled monkey" is a promising type of all his kind, the first fruits of the millennial era of universal regeneration. But in truth he is only a talking parrot, a well bred wolf, a performing tiger, whose congeners still in the forest, are what they ever were; and who, without that forest, their native habitat, to live and *breed* in, would ultimately perish, like beasts in a menagerie.

We are fully aware that these doctrines are too stern and too true, too close to nature and to fact for the sentimental school of inquirers, who prefer the pleasing fictions of their own imagination to the graver teachings of experience. They do not like the extinction of aborigines, but they do like the diffusion of Christianity and the extension of colonisation. Like foolish children, they want to have their pudding and eat it too. They would like to take the hunting-

ground, without destroying the hunter. Had they not better try to convert a herd of wild buffaloes into quiet milch cows, and see what can be done to preserve the kangaroos, by subjecting them to the shearing processes of the sheep? It would be a great saving of the poor, wild creatures. No doubt of it; but nature unfortunately interposes her peremptory negative, and says, you may have wild buffaloes or you may have domesticated cows, but you shall not have both on the same site; nor shall you, by any magical process of sudden transformation, convert the one into the other. So the buffalo and the Indian die out, and the Australian and the kangaroo become scarce, while the Anglo-Saxon and his fat heifers "increase and multiply and replenish the earth and possess it"—albeit, for him too, colonially speaking, there is a Nemesis, of which however more, elsewhere and hereafter.

ON POPULAR ERRORS CONCERNING ANTHROPOLOGY.*

"Der Irrthum wiederholt sich immerfort in der That, desswegen muss Man das Wahre unermüderlich in Worten wiederholen." Error repeats itself continuously in action, hence it is necessary unweariedly to repeat the true in words.—*GOETHE*.

"Der Irrthum ist recht gut, so lange wir jung sind; man muss ihn nur nicht mit ins Alter schleppen." Error is very good, so long as we are young, but we must not drag it with us in old age.—*GOETHE*.

It is a truism to dilate upon the deleterious effects of error, and yet it appears to be a law of progress that about every truth under heaven there should be mistakes, some wilful, some unconscious, some interested, some involuntary. Every noble science, every useful invention, every step in knowledge, or advance in freedom, has been, as it were, won at the sword's point, and has had to pass through the ordeal of error to the clear realms of truth. The attendant demons who blow up the mist-clouds only aid in the ultimate triumph of the principle, the science or the truth they seek, but in vain, to destroy. Unconscious crucibles! the truth emerges refined and pure from the dross in which it lay in an indistinguishable mass. Then follows the natural revulsion, the wilful and interested opponents of the truth are overwhelmed and confounded, and those who unconsciously fought against that truth often become its best defenders. "Let us always recollect," says Dr. Brera, "that the greatest discoveries have given origin to the most violent controversies."

If this has been the case in other departments of human knowledge and activity, who need wonder at its recurrence in relation to the science of anthropology, upon which I have the honour this evening

* A Lecture delivered before the Hastings and St. Leonard's Philosophical Society, on Wednesday, November 15th, 1865. By Kenneth R. H. Mackenzie, F.S.A., F.A.S.L., M.A.S.G.B.

to speak, and I trust ere I sit down I shall have to some extent assisted in removing some prejudices with which it is at present regarded, and set its objects more clearly and definitely before you. Never was a science of such magnitude and such acknowledged importance so violently opposed as the science of man. To paraphrase a passage in Lowell's Fable for the Critics, Anthropologists may truly say:—

“Every word that they speak has been fierily furnaced,
In the blast of the foes who struggle in earnest.”

High and low, educated and uneducated, simple and gentle, scientific bores and scientific noodles, theologians and non-theologians, High Church, Broad Church, Low Church, and No Church, Convocation, and Exeter Hall, have united in a common shout of “Apage Satanas!” against anthropological science. The less the roaring multitude knows of a science, the more stentorian is the cry of “Christianos ad leones!” Now anthropology really is a science most supremely indifferent to all this clamour; its students are content to pursue their quest into man's nature without noticing it; and certainly the noise which its opponents have made cannot arrest its ultimate triumph, and scarcely retards its progress. Sincere opposition all scientific men should respect, but the mere outcry of persons who put away the science from reasons best known to themselves, cannot affect the issue either way. It is not in my power to penetrate all the secrets of the enemy's tactics, and I hold it as a work of supererogation to expose the mean and fruitless devices of men who themselves stood in the breach to defend sciences then decried as anthropology is now; yet I trust that in pointing out a few of the popular errors afloat in general society on the question—by what agency it is scarcely necessary to investigate—I shall not be labouring in vain.

But, ere I proceed, there is one thing I would ask you kindly to understand from me in a most distinct manner. It is this. I am not here to defend any scientific society, or to asperse those who sincerely and honestly labour to inform the world. I am here purely in the interests of anthropological science which, in various ways, I have studied to the best of my ability, being assured of its vast importance to all who desire to see England maintain its high standard of intelligence and prosperity.

I shall first treat of some of the more manifest social blunders into which many, otherwise well-informed, persons have fallen. Anthropologists make a claim for scientific recognition now, not because the science is a new one, but because the time for its methodical study had not before arrived. Any science which is bound to accumulate its facts as it goes, by careful induction, is unquestionably empirical; and because that word empiric has been applied in a deservedly popular opera, and embodied in Doctor Dulcamara, anything new in science is presumed to be empirical, and empiricism is quackery: *ergo*,

“Anthropology is an empirical science,
Empiricism is quackery,
Therefore anthropology is quackery.”

Now I deny the major premiss, but the public being without time to

make the distinction, condemns the science. It might as well be said :—

“ Truth is obtained by the comparison of facts ;
The comparison of facts is an empirical process.
Empiricism is quackery ;
Therefore to ascertain truth is quackery.”

A conclusion manifestly absurd, and which may be dismissed to a logical limbo. People do not see that the objects of Doctor Dulcamara and those of anthropologists so widely differ as to only resemble the ratio between the pound of tea and the pail of water—pronounced to be absolutely exact—when you boil them together.

Let us now take another view, correlated to this. What do you hear from your average B.A. or M.A. who, after a reputable passage through Oxford or Cambridge, has settled down in life as a moderate barrister, a plodding surgeon, or physician in good repute and practice? Ask the barrister's opinion of anthropology, and he will probably answer—“ Yes, yes, no doubt, very interesting ; but scientific studies should be left to specialists, you know ; it's just like a non-professional man interfering with law,” and then you will probably have a diatribe on minding one's own business, and so forth. Our typical barrister does not pause to remember that science, unlike a profession, is often a matter of taste and choice, for which nature, and not average education, gives the bent. It is very often forgotten that the mental faculties have a bias towards these special studies, forming perhaps the only pleasurable relief from the every-day drudgery of business, and it is these men, enthusiastic in their ardour for science, who aid in extending man's knowledge and enlarging the sphere of intellectual life. These are the men who strive towards “ the clear regions ”—as Schiller has it—“ where the pure forms live.”

“ Zu den klaren Regionen,
Wo die reinen Formen wohnen.”

Our plodding surgeon, on the other hand, regards anthropology as being little else than the study of human physiology, and its students as anatomists and craniologists ; he forgets the wider interpretation that may be assigned to a study of man. I do not propose on the present occasion to offer any definition of anthropology, but I cannot refrain from quoting a short passage from Mr. Bendyshe's *History of Anthropology*, in which so much is comprised, that it will better serve than a lengthy exposition. I have slightly compressed it :—

“ Anthropology, or the Science of Man, is that science which deals with any phenomena exhibited by collective man, and by him alone, which are capable of being reduced to law. It is an empirical science, because we can only ascertain such laws from the observation of facts. It joins natural history at the one extremity, and at the other, that is, in its highest and most peculiar department anthropology has at present nothing beyond what is more generally known as the science of history. The whole domain from the origin of mankind to its ultimate destiny and extinction as a species, is embraced, so far as it can be understood, by anthropology. Many smaller sciences will of course be carved out of it, with which the anthropologist, strictly so called,

will have little or nothing to do. But that this whole space belongs to his domain will be seen from these considerations. First as to the origin and prehistoric life of man, there is no other science which can even pretend to these questions as ones it can entertain. The first might indeed be included in zoology, but clearly not the second. Nor can ethnology lay any claim to say anything of a period when, for all we know, man was not divided into races at all, or at all events when nothing is known about them."

Mr. Bendyshe here directs our attention to a very important point now much debated between ethnologists and anthropologists. To settle the questions of the comparative claims of anthropology and ethnology, it should be asked when mankind was first divided into races. For until that division was made, the science of races, Ethnology, could not have existed, but when formed was conveniently carved out of general anthropology, which, according to Dr. Hodgkin, is a term fitly applied in its most extended sense, to the study of man. Now the word ethnology is not to be traced farther back than 1838, though the division of man into races had previously taken place, and was then, as now, a matter of convenience for men of science. Some like ethnology better on account of the sound; but if scientific men are to be swayed by sound, I fear some new and melodious language will have to be invented to replace the terminology accepted for ages in the learned world; and what would become of science in the meantime it is not difficult to imagine. It is, however, in its highest and not its more obvious functions that anthropology so markedly differs. Ethnology as developed in the works of Prichard, Latham, and Pickering and others remains ever the same, employed only with the same series of facts within definite limits; whereas anthropology employs itself not alone with the human animal, but with his works, his arts, and the facts of his political changes as illustrating his probable future. Ethnology goes with you one mile, but has very slight expansive powers; but anthropology will accompany you into regions only bounded by the capacity of man's understanding.

Now, the public, habituated to the word ethnology, imagines that these two sciences are one, which is a fallacy. But there are even some persons, I am ashamed to say, who think, if possible, in a more puerile way of the objects and aims of anthropologists. Fenianism is nothing to it in the eyes of some. The fearful political programme which the lively imagination of certain alarmists has conjured up would be ludicrous were it not pitiable. I do not wish to be personal, but it is certainly a melancholy spectacle to see that in the latter half of the nineteenth century there are still persons who choose to invest the students of science with a garb of mystery, and to ascribe to the clearly expressed views of writers who desire nothing better than the triumph of truth, the demerit of hypocrisy and partiality. It is painful to be told that latitudinarian and levelling objects are the mainsprings of the action, single or combined, of anthropologists; but it is satisfactory for me to be able to add that after much study of anthropological literature, English and foreign, and after much personal intercommunication with anthropologists of widely differing

opinions, I have no where found any such levelling or latitudinarian doctrines, nor do I expect to find such in books of exact science. Even the most ambitious of conquerors and most cruel of tyrants do not war against Science. Archimedes, Bailly, and Lavoisier are the only three men of science whom I can at this moment remember who fell victims to political or military fury.

Such, in brief, may be called the merely outward and more obvious social errors concerning anthropology, but they neither cover the whole ground, nor do they constitute, indeed, the most dangerous obstructions to the progress of the science. There are two classes of society more bitter against anthropology than the rest; at the risk of offending these, but with the obligation of saying what is truthful upon me, I must speak of them. It has been made a reproach to the present age, that it is growing more and more materialistic; and those whose business it is to develope man's subjective nature and cultivate his aspirations towards ultramundane existence, busily bestir themselves to remove from his reach anything that prevents "this consummation devoutly to be wished." This is no new state of things; æons and æons of ages since, the sacerdotal caste, according to its light, did the same; and at the present day there is still a powerful party standing in the way of intellectual development, and, barring out, as much as may be, all natural science. It is a sorry sight, and reminds one of the old lady who tried to mop out the Atlantic. I do not like to see millers grinding the wind. These gentlemen oppose themselves to anthropology at the present day, on account of its presumed opposition to theological doctrines and the particular tenets of each reverend gentleman. I must, however, say, and I say it with all respect to the opinions and feelings of others, that I can reconcile the freest inquiries—philological, archæological and physical—and the most daring criticism and searching scrutiny of the materials afforded us for the reconstruction of sacred and profane history, with the most profound and spiritual reverence for the Great First Being.

"There lurks more faith in honest doubt,
Believe me, than in half the creeds."

When will men see that science and religion are two things? In many minds to be a scientific man is to be an outlaw from religious sentiment; to say we are not all Adam's sons is heresy of the deepest dye.

Much has been said as to the atheistic tendency of modern science. Never was there a calumny more vile, an aspersion to be more indignantly hurled back upon its originators. It can never be too often reiterated that a study of the inter-relations and properties of the material universe implies no such tendency, and takes up no kind of antagonistic position to religious ideas. Was it Vesalius alone who had difficulty in obtaining what the slang of dissecting room terms "subjects" for that most beneficent and noble science—*anatomy*? Where would the proud position and confident bearing of the illustrious surgeons of the last few generations have been, had not a prejudice as foolish as it was noxious been destroyed?

No! Science, as the interpreter of Nature's laws, is one thing.

Religion in the sense of a reverence and honour for and towards an unseen power, is quite another thing, correlated to an entirely different set of thought and duties. Because the structural forms and the natural properties of any given substance necessitate the close study of a mind, and its devotion to the matter in hand rather than to ceremonies possessing significance only in other ways and those totally distinct, it is worse than nonsense to affirm that such material study annihilates reverence or renders the mind antagonistic to religious creeds. Of a divine essence, a scientific man, as a scientific man, knows no more than he does of an undiscovered metal, or in anthropology, of an undiscovered race. It is therefore hard indeed to find the less educated portion of the clergy and the more prejudiced, so illogical as to charge atheism, rancorous and absurd, upon the student of natural science in whatever way it may be pursued. To paraphrase a well-known sentence—"an undevout anthropologist must be mad;" but it does not necessarily follow that he should walk about with his creed pinned upon his sleeve. Hence it is as unjust as it is ungenerous to charge upon any scientific body or individual overt or covert hostility to that which is, functionally speaking, totally irrelevant to it or him. Our noblest philosophers have ever looked up through nature to Nature's God. The somewhat unimportant section of professed religious sensational preachers, must be contemplated in their present attitude, as looking rather from, than to, the Divine Architect. With such attitude Science has as little sympathy as it has concern, and they may safely be left behind, in the words of Lowell:—

"Brandishing their worn theological birches
Bidding natural progress keep out of the churches."

If Science is to do anything for mankind, it is to decide its future in illustrating its past. If we are to be sincere in our aims, we must leave off such party ideas, or annihilate them. Students of Aquinas invented no machinery, and other brains than those of abstract theologians devised the electric telegraph or the dynamometer. Dr. Watts wrote Hymns for Infant Minds: James Watt invented the Steam-Engine.

It would be idle to pursue the theological odium in respect of anthropology. A science so ancient that its roots cannot be found,—illustrated by the eternal edifices of Egypt, the pillared fragments of the Parthenon, the dusky caves of India, and the perchance still older walls of Peru, back through the vista of ages, to the Stone age and the solitary savage of Neanderthal,—can well continue its useful functions without let or hindrance from prejudice or error. There is a hopeful future before us. The tendency of the present age has been to supersede the idle dilettantism of the last two generations, and to treat the study of man in a more comprehensive manner. Medical men, the enlightened custodians of the national health, can rarely spare from their laborious functions the time to enter into minute studies of the action of mind upon matter, and hence it has often been supposed that they, absorbed in the special study of the intimate nature of the body itself, become materialistic in regard to other thoughts. But surely a minute research into the human structure need not neces-

sarily lead to atheism, well stigmatised by Auguste Comte as "the lowest form of metaphysics," a study for which, in a certain sense, that writer had a burning contempt.* Sir Benjamin Brodie was a distinguished proof of the fallacy of such an argument; his *Psychological Inquiries* remain as a confutation of such an idea. Because the principle of life, whatever it be, cannot be produced on the point of a scalpel, a cry is raised against medical men, and an unfair stigma attached to them in the pursuit of their patient labours. In point of fact, we may say with Goethe, "neither mythology nor legends are endurable in science. Leave these to the poets, whose calling it is to manipulate them for the advantage and charm of the world. The scientific man should confine himself to the next and clearest matter offering itself. Yet should a man of science occasionally assume the dress of the rhetorician, it should not be forbidden him. I regard," continues he, "all phenomena as independent of each other, and seek strenuously to isolate them; then I contemplate them as correlatives, and they combine to form a definite existence. I refer this more especially to nature, but this method is advantageous even in relation to the most recent universal history." This advice of the great German is good; to disconnect, to isolate and to simplify: such are at present the watchwords of science. Anthropologists would do well to remember this, as the science of man comprehends both the contemplation of nature, and the natural side of man, and of the events of history as illustrating his psychological characteristics.

Some gentlemen here present will, I know, not be surprised at the next section of enemies to anthropology, of whom it is my duty to speak. I allude to that section of the public known throughout the world as British philosophers. Of all the inveterate foes we, as anthropologists, have had to encounter, the self-constituted *savans* of Great Britain have been the worst. The theologians "pale their ineffectual fires" before these would-be promoters of knowledge. Had anthropologists chosen to come forward, hat in hand, with some brilliant fallacy dressed up as an hypothesis hinging conveniently on the door-posts of their temple of knowledge, leaving to those ancient men the sanctuary within which to revel, and the sacrificial meats whereon to feast, all would have been well. One by one, those who studied the Science of Man might have been allowed to enter, in a duly respectful manner, to their august presence. But having no brilliant fallacy to offer as their capital, bringing nothing but clear eyes and an honest determination to tell the truth and nothing more, the anthropologists found no favour in the eyes of the scientific authorities. Anthropology was "a name unmusical to Volscian ears," and at the threshold of their enterprise, there being nothing better to be done, its students were told that the mission was altogether unnecessary, that anthropology was a work of supererogation, and that ethnology comprised every subject proposed to be illustrated in anthropological science, and more too. But I do not think archæologists would be prepared to cast in their lot with ethnologists; the study of ancient

* Comte, "*Système de Politique Positive*," tome i, pp. 46, sqq.

pottery, of weapons and architecture, certainly does not seem to be any part of the function of ethnologists, nor does the investigation of chronology and history fall into their sphere. It is, however, fairly included in anthropology. This science then comprises three great subdivisions as defined by eminent authorities.

First, the history of mankind upon the earth, or archaic anthropology, a term proposed by Dr. Hunt; second, a description of the existing races of men, or descriptive anthropology; and third, the comparison of races structurally, geographically, and mentally *inter se*, or comparative anthropology. Such are the accepted divisions of anthropology. Personally, I am disposed to think that it will in course of time be found convenient to form a fourth division, having for its special object the investigation of the interrelations between man and the cosmical bodies. This may seem at present premature, but the progress of physical science may detect affinities between man and cosmical chemistry, at present hardly suspected. When the action of light from distant stars, and the nature of physical changes in cosmical space are investigated more fully, as means permit, such action on organised bodies serving as the food of man, used to promote his physical gratification, or for remedial purposes, may become better understood; and we may find that the remote stellar universe has some influence upon the qualities of food and drugs; in this case the recent interesting investigations into actinic radiation might assume some importance in the study of the Science of Man. That aerostatics is destined to furnish valuable anthropological facts can scarcely be doubted.

This will sufficiently show, I think, that ethnology is a term much too restricted for the science of man. The Ethnological Society has, perhaps, rendered good service in preserving an interest in ethnic questions, and has prepared the way for the most extended researches in progress upon the Continent, in America, and especially in England. But it will readily be understood that now is not the time to shelve facts, and proceed to the pleasanter task of reading pretty little papers on anything but pretty little populations, made up with pleasant little stories of what had been heard, but not seen. Some societies have done this, I am sorry to say, and still been considered as the veritable exponents of science, and obtain recognition at the British Association, while the anthropological labours of two worlds, the historical reputation of its professors, a literature almost as old as the revival of learning, and the most exact observations of modern times, are to go for nothing. Hence it is that the general public has remained in ignorance, but is it not time to ask a few serious questions? Does ethnology take any heed of the social condition of man? Does ethnology presume to search into the causes of epidemics among civilised men? Does it take any note of abnormal formations in order to ascertain the laws of the science founded by Geoffroy St. Hilaire? Does the ethnologist consider how to apply the series of facts obtained for the bettering of the domestic condition of the poorer classes of the community—to trace the hidden causes of mental aberration with a view to practical measures for the prevention of lunacy—to investigate

race and the affinities of races, so that the results may become valuable to social reformers and to statesmen? I believe almost every one will agree with me when I say, No! Yet all these things are but a portion, and a comparatively small portion, of the duties of anthropologists. We are also widely supposed to be men having for their chief objects the study of craniology and craniology. Skulls and cannibalism are the constant theme, say the detractors of anthropology, and chorus the blinded followers of the general cry. Give an anthropologist half a dozen skulls and a few out of the way bones, and, like a child at play—goes the general report—he will be happy. Now, though I do not undervalue the importance of craniology, and in the determination of species it is one of the best ascertained facts, yet I think, and the ethnologists go with me there, that it is not the most important branch of the science of man. Anthropologists have had, and will ever have, much more to do with matters of a widely different nature; but are we, therefore, to neglect those portions of the science which have been illustrated by the genius of Morton, Thurnam, and Barnard Davis? It is for the public at large to supply anthropologists with other themes for their discussions; everything that illustrates Man and his affinities is welcome.

Before proceeding to speak of the British Associationists, I might here pause to remove another popular error. It is presumed that anthropology must be cultivated by specialists, as anatomy is cultivated by anatomists. Now this is not so. Of course, every observer requires some training; but any man who is a quick observer of man and his habits, and can and will faithfully record what he sees, aids in the pursuit of the science. We often hear from the mouths of persons, not accustomed to literary composition, new and important facts, which, collected and compared with other facts, would materially advance our knowledge of man. The field is a very large one, and all in their several capacities may work in it to great advantage. My own studies for the last fourteen years have more or less been intimately associated with Anthropology, and, as the Science progresses, I find additional knowledge springing up in every direction. Since the publication of *Indigenous Races of the Earth* in 1857, a work although bearing the second title of *New Chapters of Ethnological Inquiry*, was by Mr. Gliddon, one of the authors, in a letter to me, termed “purely anthropological,” the science has everywhere advanced in a remarkable manner.

This progress caused the ethnologists to stimulate the opposition of the British Association in denying anthropology scientific recognition. Like Othello, their occupation would be gone, if they did not succeed in keeping anthropology out. A more humiliating scene than presented itself at the first meeting of the General Committee of the Association I have never had the ill-fortune to see. Gentlemen of acknowledged scientific rank, of wide-world fame and deserved reputation, went out of their way to assign reasons why the science of anthropology should not be admitted to the scientific franchise. Reform is obnoxious, and the borough was not to sit. One gentleman well known in relation to the Malays ran amuck against the science of man in a good old

fashioned style, and suggested canine derivations for some anthropologists. And why should gentlemen of the British Association resist the science? They are in the majority. "Nothing," observes Goethe, "is more repulsive than the majority—for it consists of but few powerful representatives—of rogues, who make compromises, of weaklings, who effect junctions, and the great mass which lumbers after, without being in the least aware of its own will. That which retards science the most is that those who occupy themselves with it are mentally unequal. They may themselves be really in earnest, but they do not know what to do with earnestness in others." This passage, I think, grapples with the whole difficulty much more tersely than I could hope to do.

I have reserved one popular error concerning anthropology until now, because I feel strongly myself upon it, and I know that widely different views are entertained upon it throughout society. Many persons suppose that because anthropologists assign a low place in nature to the negro, they necessarily despise him, would treat him as an inferior being, would leave him in enforced servitude, and even place him worse off than he is. Now, as anthropological science did not create Sambo, anthropological science cannot be held responsible for Sambo. As an individual, I think I may be allowed to say that the negro, whatever the distinctive characteristics of his structural frame, and they are undoubted and numerous, would meet with the same fair criticism at the hands of anthropologists that they accord to other human races; there is no wish to maintain the negro in slavery, but rather, by pointing out his true position, so far as we can gather it, aid him substantially, instead of sentimentally, through his present troubles, to a better condition of social existence. The Anti-Slavery Society has received vast sums of money, the government has expended much upon the African, and the nation has not been behind-hand. But has it in reality improved the condition of the negro? I think not. Beyond teaching him a variety of European vices, giving him very insufficient value for produce, making a religious fanatic of him, or a hypocrite, as the case may be, the results have not tended to the benevolent issue proposed. I am obliged to be very plain in what I say, and I am ready to accept the issue of my speech. It is an universal fact that all interference with semi-civilised races, as with semi-civilised persons, tends only to confirm preconceived notions. I do not believe it possible to civilise the negro in our sense of the word. I believe that you might as well try to wash him white. We must try to observe him as the trainer observes the peculiarities of a horse, and lead without driving him. Beyond a certain point western civilisation cannot be understood by alien races. It is a problem of deep interest and great difficulty to learn his true position in the human family, and one in which many earnest workers have done good service. I refrain from making mention of names, however much I may respect them, because on the present occasion my object has been rather to touch upon material facts in science than dilate upon persons.

Therefore, I say, it would be a gross misrepresentation to urge as a

reason for opposing anthropological science that it tends to lower the standard of the negro, and in any way support the perpetuation of slavery anywhere throughout the world. Though an inferior being, whatever position he is naturally fitted for, he will ultimately attain, and with that position will commence a new era of study for future anthropologists. In the twilight of science many objects assume distorted proportions, and the reports of investigators have hitherto been so contradictory as to cause errors against which anthropologists have had to guard in their deductions. I need only cite one instance of this in the question of the cannibalistic tastes imputed to many races of man, now shown, in the majority of cases, and not a little by the labours of recent anthropologists, to be gross exaggerations, and often utterly without foundation. It is not long since that prince of travellers, and most unprejudiced of observers, Captain Richard Burton, vindicated the African character even from the charge of stupidity and unprogressiveness of mind. This he effected by publishing a collection of African wit and humour in the form of a proverbial philosophy, in which much native acuteness, worldly wisdom, and quick penetration of motives not derived from extraneous sources, is evinced. Personally, except amongst the half-castes—the hybrids—I have not much faith in the durability of European civilisation in Africa; the genius of the negro is more allied to the forms of government and institutions of Mohammedanism than to those of Christianity, and I regard the millions spent upon those fertile shores as being little else than a pretext for establishing stations for purely commercial purposes of a character anything but creditable to the vaunted probity of British merchants. But about this, I presume, we must comfort ourselves as the old woman did about the Deluge, when the clergyman told her it was very long ago. “Is it?” quoth the worthy dame, instantly brightening up; “then let’s hope it’s not true!”

I have now, I think, in a rapid, though certainly an imperfect manner, reviewed some of the principal errors current in general society respecting anthropology. I have endeavoured to interpret from the general experience I have had of individual anthropologists, the objects which have actuated modern students in preferring a claim to be heard, and in drawing attention in a more methodical way to human nature. The new science takes up a position not hitherto occupied. That this science is important is evinced by the numerous societies established in various parts of the civilised globe. It is only matter of astonishment that this has not been done before. It would, however, be very wrong in me to conclude these observations without a few words respecting the individualism displayed in the matter. The ultimate triumph of anthropological science, and the removal of the popular errors to which I have referred, must depend upon the energy of individuals. The success which has attended the cause hitherto, has depended upon the Founder of the Anthropological Society of London, who, with unflagging zeal, through good report and evil report, with indomitable good temper and skilful helmsmanship, has hitherto steered the science through the shoals and eddies

commonly met with at the outset of any new enterprise ; and so to him is due the honour of seeing the science in its present proud position. But others must aid the captain of the ship, the muscles cannot always be strained, the mind, in all cases, has its limit of power, and others must do what they can to promote the common cause. Individuals alone promote science, eras do not. The era condemned Socrates to the poisoned chalice, not the knot of individuals who had listened to his philosophy. The era condemned Galileo to recantation, and the era, what the German call the Zeit Geist or spirit of the age, acts uniformly towards all things bearing the appearance of Innovation. One of the ways in which every era acts may be cited ; it consists in the unthinking reverence that some persons evince for established forms ; what was true two hundred years ago is true now : a quaint author of the seventeenth century complains :—

“ But such is the deplorable blindness of this unjust age, that men do still besot themselves with a vulgar report, and will not suffer themselves to be undeceived. A philosopher would have a worthy task to take a survey of all the absurd falsities and chymæras which have been forged, and to give manifest proof against them. For whatsoever experience, or whatsoever solid reason he might employ, should there but come a man in a Square Cap and write underneath, *This is false*, experience and demonstration have no more force, and it is no more in the power of Truth to re-establish its empire ; men will believe this square cap before their own eyes.”*

The Square Cap, if it have its due from the public, is not so implicitly believed in among anthropologists, so that I do not share the despairing conclusions of the writer.

Several times in the course of this paper I have referred for illustration to the pages of Goethe. I have advisedly done so. This is not the time to speak at length of that great man, but I cannot refrain from saying that perhaps Goethe unconsciously was an admirable representative of a true anthropologist. He had no theories ; he accepted facts as he found them, like an illustrious and noble-hearted statesman but recently departed from among us, but with that happy divinator faculty met with in some men, he combined the unwearied energy which fights against Error and emerges into the True and Real, and turns, to use his own expression, for refreshment from the desolate wastes of error to the Immutable and the Actual.

Anthropologists, as scientific men, have dangers to anticipate, yet their course is fairly marked out. Whatever is in store for us, I think, while I thank you for your kind attention this evening, that you will join me in applying those words of Longfellow, so well known to all of us, to the anthropologists.

I therefore say, whatever be the ultimate decision of the public, and in their good sense, in the long run, I have great confidence :

“ Let us, then, be up and doing,
With a heart for any fate ;
Still achieving, still pursuing,
Learn to labour and to wait.”

* “ The Count of Gabalis”, pp. 172-3, ed. 1680.

ANTHROPOLOGICAL CATHOLICON.*

MR. STOTHARD is certainly a very brave and probably a somewhat original man, and the result is most assurdly that he has been enabled to write a rather strange book. We see that it is published "for the author." At this we are not surprised, for with all the odd adventures in which the trade occasionally engage, it is very doubtful if any sane bibliopole, either in the Row or out of it, could be inveigled into such a speculation as Psychoneurology. To define such a work is we fear impossible. There, for instance, is the fashion in which, on his third page, without circumlocution, the author proceeds to discourse on the great diluvian patriarch, the second father of mankind.

"We read in the pages of Holy Writ, that Jacob called all his sons together, and predicted their several destinies. With his example before me, I trust I may be permitted, in the fulfilment of my design, to lay down the principles of Physiognomical Science, and indicate the characteristic signs by which the dispositions of men may be discerned. We are told, moreover, on Scriptural authority, that, in the days of Noah, there were giants; that the sons of God saw that the women were fair, and of them selected wives. Are we not, therefore, justified in the inference that Noah himself was endowed with great physical, nervous energy, and mental power? Had he not possessed these attributes, how could he have undertaken the stupendous labour of building the Ark? To have understood silently, and to obey the divine command, pre-supposes the existence of great, enduring, bodily power, strength of nerve, and mental energy.

"To construct a building sufficiently large (and the dimensions are given) to hold male and female of all animals, in addition to his own family, his three sons and their wives, was an undertaking which exceeded all the labours of Hercules. His sons might, or might not, possess the three attributes of Noah just enumerated, in that degree of proportion which would enable them to be transmitted to future generations; and, indeed, the rare circumstance of the three qualities referred to—viz., physical strength, nervous energy, and mental power—being found combined in both husband and wife, may serve to account for their being so seldom witnessed in one man; but when so combined, we have before us a man of genius.

"Not to enlarge on this point, I proceed to give, as a first illustration, Noah, with his physical attributes (B No. 1), combining therewith his mental attributes, as represented in this figure:—"

And we must say that Mr. Stothard has succeeded to admiration, in producing the portrait of a very determined individual, who doubtless might, with adequate longevity, preach for a century, to a stiff-necked generation like the antediluvians, and at the end enter

* "Psychoneurology"; a treatise on the mental faculties as governed and developed by the animal nature, shown by a demonstrative chart entitled "Anthropological Catholicon". By Robert Thomas Stothard. London: published for the author by Francis Harvey, 4, St. James's Street.

solemnly into his ark, resolutely shutting the door thereof in the face of an unworthy world. As to Shem, Ham and Japhet, who are duly placed in line beneath paper, they certainly seem, as the author unmistakably hints, to be but the degenerate descendants of so sublime a sire. And indeed, if degeneracy went on at the same pace for only a few generations, we should have no great difficulty in accounting for the appearance of Aztec or any other types, that might chance to be evolved in this dreadfully downward course of the *bipes implumis*!

After such a beginning, the reader will of course not be surprised at anything he may meet with in the course of the work, which appears to be a rambling, disconnected series of observations on the phrenological and physiognomical indications of character, based in part on the discoveries of Gall and Lavater, whose systems the author has mingled but not harmonised. At the commencement and facing the title-page is a chart, with the somewhat resounding title of "Anthropological Catholicon," intended apparently as a summary of all knowledge in reference to man. While farther on, in a note, the author informs us that it is his intention to publish an *Anthropological ZODIAC*! Of the precise nature of this fearfully mysterious production we are not informed, but from an allusion, we are left to surmise that among other things, it is to contain hints to parents as to the proper times and seasons for obtaining a superior offspring! Truly this nineteenth century, more especially in these its latter decades, is certainly a most extraordinary period, wherein science and superstition are politely invited to the same party, in the hope of an amicable interchange of superior ideas and refined sentiments. An age in which Professor Tyndall is cotemporary with Zadkiel, and the veteran Faraday is expected to stoop to the solution of spirit-rapping, and an age therefore in which, very properly, we have the Anthropological Catholicon as a realised fact and the Anthropological Zodiac as a comforting promise.

INFLUENCE OF RACE ON DURATION OF LIFE AND DEVELOPMENT OF DISEASE.

THE study of anthropology has established the great fact, that the different races of mankind do not possess the same aptitude to contract the various diseases which afflict mankind. These questions are raised and discussed with much ability by M. Boudin.

Dr. Glatter, Director of the Statistical Bureau of Vienna, has published his curious researches on the degree of frequency of diseases in the different races inhabiting the comitates of Pesth and Pilis, in a memoir entitled *Das Racenmoment in seinem Einfluss auf Erkrankungen* (Casper's *Vjsch.*, 1864).

According to this author, the knowledge of the fact of the biotic variation in races is not sufficiently explained. Education, alimenta-

tion, and customs, which vary in the different families of mankind, no doubt leave their traces both on individuals and the masses.

But, apart from this action which external influences produce, we must search for certain peculiarities of vital resistance observed in individuals not of the same blood, in the facts of their origin. Thus, when we see that a Slovak child (Slavonians of the North), the mother of which takes during her pregnancy less care of herself than her Hungarian or German neighbours, and which possesses a better chance to live than the German child, which is surrounded by all comforts, we can only explain the anomaly by the hypothesis of race influence. It is not necessary to coin a new word for this unknown cause and put a phrase instead of the idea, but to collect facts useful to science and human life. A number of interesting researches may be made as regards the anatomy and physiology, the nutrition, and action of medicaments upon the different races. . . . It is well known that therapeutics differ according to regions, and medications may be useful in one and pernicious in another district. The author has endeavoured by statistics to solve the important question of the influence of race on the frequency and gravity of certain diseases. For this purpose he has collected the notes of practitioners in the comitats of Pesth and Pilis, on the diseases observed in the five races inhabiting these countries—Magyars, Germans, Slovaks, Servians, and Jews.

The following are the figures upon which Mr. Glatter's calculations are founded:—Magyars, 6034 patients; Germans, 3806; Slovaks, 1522; Servians, 252; Jews, 1540. Thus we have in 1000 patients, 559 Magyars, 290 Germans, 116 Slovaks, 119 Servians, 116 Jews; whilst, as regards population, these different races stand in the following proportions:—In 1000 inhabitants, 534 Magyars, 223 Germans, 182 Slovaks, 28 Servians, 32 Jews.

After giving a detailed account of the degree of frequency of various diseases, he proceeds:—

1. *Magyars*, although inhabiting low, marshy districts, are not so much as might be expected subject to intermittent fevers, diarrhoea, and liver diseases. They may thus thrive where other races perish. Though they use a greasy and spiced alimentation, they are but little liable to gastro-intestinal catarrh. On the other hand, they are subject to diseases produced by cold, such as rheumatism, dysentery, etc. The author attributes these peculiarities to a sort of torpor in the ganglionic system. . . . In 1853 they suffered much from cholera.

2. The Germans chiefly occupy the higher territory of the right bank of the Danube. They present, as regards intermittent fever, nearly the same proportions as the Hungarians, but require more care for the sequelæ. All affections of the digestive canal present high figures. Besides this, typhoid affection, rheumatic fever, tubercular disease, infantile convulsions, and croup occupy a large space in the pathology of the German race.

On the whole, there exists among them a remarkable morbid susceptibility, which is not counteracted by a regular life.

3. The Slovaks inhabiting partly the heights and partly the low marsh districts, are much more disposed to contract fever than the

Germans and Magyars. Diarrhoea and asthma are very frequent, tubercular disease much less so. In the Slovaks there seems to obtain an antagonism between intermittent fever and tuberculosis. In 1853, when the Magyars suffered much from cholera, the Slovaks, although they led an irregular life, seemed protected. This was also the case in 1855. Dr. Glatter thinks that the Slavonian race is more exposed to typhoid affections, and he has recognised a marked predominance of the abdominal form over the cerebral and pectoral form.

4. The Servians are proportionally much exposed to intermittent fevers and chronic affections of the abdomen, although they do not inhabit paludian regions. The females are more subject to puerperal fever, hysteria, uterine cancer, than women of other races inhabiting the country. Typhoid affections, dysentery, acute rheumatism, asthma, worms, occupy a subordinate place in their pathology. On the other hand, there prevail heart disease and tubercles of the air-passages. Dr. Glatter explains these peculiarities by a great susceptibility of the ganglionic nervous system.

5. The Jews, who live scattered in high and low localities, possess a remarkable immunity from intermittent fevers, infantile convulsions, and phlegmasies of the respiratory organs. On the other hand, they suffer more from cutaneous diseases, and also from gastro-intestinal catarrh and ruptures. Although their regular mode of life may account for some result, their immunity must be ascribed greatly to their organisation.

These facts are confirmed by the bills of mortality of the five races in the district of Buda.

ON THE EXTINCTION OF ABORIGINAL TRIBES.

IN the matter of the Extinction of Aboriginal Tribes, discussed in your January number, it cannot be charged upon our countrymen and other Europeans who have settled amongst the islanders of the Pacific, that they *designedly* slaughter the natives, as has been, and still is, too sadly the practice in some other parts of the world.

It is true, that in those islands where whites have settled in large numbers for any length of time, the natives have decreased in a most surprising manner. This rapid decrease, however, is most unquestionably the result of disease and alcohol; and notably so in the Sandwich Islands and in Tahiti. In the former group it has been computed that when Cook was killed, the native population numbered no less than 200,000. At the present day, it is not more than 80,000. They are, and have been for many years, all nominally Christianised; that is to say, they have renounced their heathen customs and practices, and have accepted Christianity, as taught by indefatigable American missionaries, for their national religion. With the introduction of Christianity, civilisation has visited the group, carrying its bane with its blessing. At Tahiti, the facts are similar;

and in both cases the result is the same. The men and women have taken to drinking to a frightful extent,—the women have, for the most part, become prostitutes. They have ceased to bear children, as they did formerly, when without the pale of civilisation and Christianity. Those women who, in one way or another, are connected with the mission stations, Protestant or Roman Catholic (and amongst whom alone, one may almost say, is chastity to be found), are the few who produce children, while the multitude of women, who have become prostitutes, from time to time swell the lists of the dead without having added to the number of births. Of diseases which have worked out this result, that peculiar one introduced and disseminated throughout the Pacific by our sailors, has been more active than any other, though small-pox and influenza have both assisted. Of alcohol, the most common form has been gin, brandy, and beer. Going westward to Rarotonga, in the Harvey Group, the same fatal agencies are found to have been assiduously and effectually at work.

At Samoa there has been, as yet, no very material decrease of the natives. But the Samoans, numbering some 30,000, have not taken to our intoxicating drinks. The few men who are occasionally to be seen in a state of intoxication, have almost all served as sailors on board American whaling or Australian trading vessels. The prostitution of the women is as yet by no means general, and disease is confined to those who walk the beach of Apia,—the only port, fortunately for these islanders, where vessels call to recruit. The natives have all nominally embraced Christianity.

The Tongans take to drinking very freely, and the women to prostitution. The population of the group is, however, comparatively small, not more than 20,000; and, by the rigour of his administration and a system of legislation which awards to the informer and to the judge a share of the fines incurred by evil-doers, King George Tubou has thus far checked the *open* and rapid spread of the two vices; and there has been no very marked decrease of the natives. And here, too, all have embraced Christianity.

In Fiji the natives take to intoxicating drinks in a most lamentable manner, and the women are but too prone to prostitution, though there has not yet been time for the vices to take fatal effect throughout the group. Until 1859, the intercourse of the white man with the Fijian was limited to the exchange of merchandise and produce, as each man, distrustful of the other, held his musket and his tomahawk in hand. Now there is free intercourse throughout the coasts of the group, and security for life and property; already at the ports frequented by vessels the demand for prostitutes is equalled by the supply, and brandy is required in payment for native produce or labour. And such is the character of the Fijians, who number something like 250,000, that, as their intercourse with the white man and contact with the white man's civilisation grow older, they will become inveterate drinkers and bold prostitutes, entailing the inevitable disease in spite of the most repressive laws or the most zealous teachings, just as in the Sandwich Islands and in Tahiti. And the ultimate result will be the same; they will die off before the white man

and the white man's civilisation, without any designed, indiscriminate slaughter at the hands of the latter. This is, moreover, a trait in the character of this people, which, taken in conjunction with the turn events have latterly assumed, gives sufficient base for the prediction that the day will come when the Fijians, counting less than one half their present number, maddened by the white man's alcohol, jaded by the whiteman's civilisation, will rise upon the intruders with the vain hope of ejecting them from the country and staying their own rapid decay before the superior race.

In no islands of the Pacific where the white man, whether impelled by the aggressive zeal of Christianity or the stern necessities of civilisation, has settled or introduced his influence, has there been any actual, tangible increase of population, as resulting from the contact and juxtaposition of the two races. Christianity has indeed been wonderfully successful in teaching the islanders to renounce the heathenism and the superstition of their fathers, to give up war and to live in peace, to afford security for life and property ; but nowhere can I find as the result of the new order of things,—of the transition from heathenism to Christianity, from barbarism to civilisation, from an unknown isolation to free intercourse with the world,—that the native population of any island or group of islands has actually and tangibly increased, either in number or healthiness. Just as the whiteman and the influences which accompany him, intrude upon the home of the Pacific Islander, so the latter, accepting the habits of the former, gradually but too surely wanes.

One of the innovations introduced by missionaries in the name of decency and encouraged by traders for the sake of profit, is a sure though slow agent, in addition to those already named, for the extinction of the islanders. The natives, accustomed to the scant clothing which, in the tropical climates of their islands, nature tells them is ample for health, are taught to assume trousers and coats by day and blankets by night. Nothing so surely kills the Pacific Islanders as these same trousers and coats and blankets. He dresses up in the prescribed style for church or for a procession ; he sits through a long hour and a half's service in a hot room, and, as the "amen" is pronounced, he rushes home perspiring freely, throws off coat, trousers, and shirt, stretches himself on the mats, where the full force of the breeze, suddenly checking the perspiration, speedily cools him. He is next seen at the missionary's dispensary, asking for medicine for a little cough. In a few months he is again seen—a corpse, the victim of pulmonary disease induced by the process just described. A thin shirt over the body, a light wrapper round the loins reaching to the knees, are ample dress for any Pacific islander in their tropical climates, either as conducing to decency or to health. To teach them to wear clothing which neither monition nor experience prevents being thoughtlessly thrown off as soon as the wearers become too warm, and the public exhibition has gratified their vanity, is simply to hurry them prematurely into the grave.

WILLIAM T. PRITCHARD.

MAN'S PLACE AND BREAD UNIQUE IN NATURE.*

THIS work is, on the whole, not a bad sample of the literature of the age. It is wholly unintelligible; whilst the author has endeavoured to dilute the small amount of argument at his disposal to such an extent that few will care to sink into its depths beyond the title-page or the dedication. As, however, the task has devolved on us of endeavouring to discover what there may be within its husk of anthropological interest, we shall try to examine a few of the author's facts and arguments.

The author states that the work, written in counteraction of certain views put forth by Mr. Darwin, Professor Huxley, and the late Professor Baden Powell, is offered as "a contribution from physiology and psychology, to the argument for the supernatural in nature and the providential and divine in human nature; also in defence of the rights of humanity, and towards repelling the recent 'invasion of these by brutes.'"

The general reader may possibly here be led to exclaim, with Mrs. Brown in the popular entertainment, "Who do you call a brute?" The politeness by which the author initiates the refutation of his antagonists, by this offensive commencement, is nearly equal to the flippancy with which the word physiology is used by him. We must say that there is not a line of physiology in the book, and it is to be regretted that the author should have employed a word of whose meaning he has no comprehension.

A sentence on the eighth page betrays that the University Professor is from the other side of the Tweed. He speaks of what Mr. Darwin calls "the struggle for existence" or the "tendency to take the wall." To take the wall, we must explain to our readers does not mean to exclude the antagonistic species by shoving him towards the kennel; it means, in the idiom of Caledonia, employed by the University Professor to be compressed against the wall, while "the croon o' the causey" is left to the more favoured races. We are obliged to insert this *caveat*, lest the southron readers of the work should not be able to comprehend this esoteric allusion. To "take the wall," according to our author, is synonymous with to "come to grief."

The views of Mr. Darwin and Professor Huxley are considered and discussed in three pages; one page, however, suffices to demonstrate the absurdity of Professor Baden Powell's views; and "for the purpose we have in hand, this brief outline of the views of Mr. Darwin, Mr. Huxley, and Mr. Baden Powell will suffice."

He states that man is, "in a certain sense," an animal, and that nothing exceptional, or intrinsically distinctive, can well be made of

* "Man's Place and Bread unique in Nature, and his Pedigree Human, not Simian. By a University Professor. Edinburgh: 1865.

his thumb or his great toe, or of anything in his brain. . . We claim no superiority for him over the brutes on the ground of organic structure. If the author had possessed that "physiological" knowledge which he has assumed, he would have known that this concession to the transmutationists will be one which few of them will agree with. No one says, not even those who have most vehemently supported the theory of man's descent from the ape, that man's structure is identical on all points with that of the inferior animals. The advocate of man's genetic derivation from beast may urge with plausibility and with great truth, the close resemblances which exist between the anatomical character of man and ape, but absolute identity has never been inferred by any person whatever. Proceeding to psychology, he says, "In respect of that, namely mind, which is the mainspring of all his activity, the brutes may claim a common nature with man. Mind is mind in the brutes as in man." The complex nature of the last sentence so baffles us, that we are not much enlightened when we are told that a long list of biographical heroes were "representative men," and consequently were "beings of quite another order." Asserting the freedom of man's will, and his capability for education, the author considers these two points to be sufficient to distinguish him from the inferior animals. He goes on to affirm that "man is not—as the brutes are—beholden to nature for what he is. From the first, he must have been able to stand erect, and to walk, to handle things (?) to speak, to reason," etc. Now, we have a right to ask, why need the first man have been able to speak? Generations of men have subsisted in the condition of the Veddahs of Ceylon, devoid of any complex articulate language: and the fact that a serious discussion has recently taken place, in which the primordial mute condition of mankind has been advocated with great skill by the Rev. Dunbar Heath, shows that some persons at least are not willing to accept the imperative "must" of the University Professor.

Such absurdities as the following abound throughout the work. "The art of cookery a part of the plan of nature! no doubt it is: and full of meaning it is in relation to the point before us." Man has to learn "the lesson of the pot, and how to boil it, which takes in also the lesson of the fire, and how to kindle it. Could nature have taught man these lessons? The ancient Greeks attributed to Prometheus—a supposed superhuman being—the introduction of the use of fire." [Whately.] "Need we hesitate to regard it with them as supernatural, or to attribute it to God? We will not, unless we are prepared to shut our eyes to the meaning of the plainest facts in nature." The author here reverses the ancient proverb, that "God made meat, and the devil sent cooks." The only probable solution of this difficulty is that he may be a Manichean, in which case the diabolic origin of our culinary art may be perfectly compatible with the idea of its effluence from the deity.

The counter proposition which, on this as on similar occasions, we should wish to bring forward is:—Man's physical structure differs much more from that of the lower animals than does his mental (or moral) nature, which is identical in kind though not in degree with

that of the ape. For an example, the characters of the hand, foot and brain of the lowest man are, to our mind, so widely different from those of the highest ape, that a distinct order of animals—perhaps even a distinct subclass—is necessary to denote the value of the zoological distinctions which exist. But the mind of a newborn child is so little different from that of a newborn ape; the moral aptitudes of an Australian savage are so inferior to those of a Newfoundland dog; that any psychical distinction between the two great upper divisions of the mammalian scale—*Gyrencephala* and *Archencephala*—appears to us rash in the extreme. The origin of man, wrapped by the veil of countless ages with impenetrable obscurity, must, according to all the principles of analogy, have been from some lowlier form of life; whilst cycles of ages have elapsed without raising millions of the human species into the scale of reflective reasoning beings. That the mental status of some individuals at least has not risen to a very high level, the publication of the present work conclusively demonstrates. We trust that in the desire of a well meaning, although intensely tedious section of the community to oppose “Darwinism,” although they may probably succeed in annihilating or modifying the arguments of its illustrious author, none will endeavour by works of the nature of “*Man's Place and Bread*” to cast dust in the eyes of the intelligent public by denying the fundamental conclusions of biological science.

POPULARISED ETHNOLOGY.*

ALL work and no play makes a learned society a very dull body. Such societies as the Asiatic and the Philological are very dull bodies. The Royal Society is so great and powerful, and real distinction is so rigorously exacted, or is meant to be so rigorously exacted, as the condition of its fellowship, that it becomes impertinence to think whether it is dull or not. But all these societies are content to take their stand upon their work. On the other hand, it is certain that all play and no work will wear to rags the most scientific of garments worn by a learned society. Foremost among those bodies which prefer play to work, and which seem to care less for the record and transmission of severe scientific observations through their journal than for the engaging presence of ladies and fashionable reporters at their evening meetings, is the Ethnological Society. Of the great Geographical Society we say nothing; the truly scientific part of its work is transacted in the cabinet, and its practical work is in its very essence popular, and requires and deserves all the popularity it can get. But ethnology is not an exact science, nor yet an outward and popular topic with practical bearings; it is an inexact and tentative science. It may be defined as being formed of the complex of physiology, philology, ethnology

* Reprinted from the “*Pall Mall Gazette*” of January 17, 1866.

or psychology, together with history and genealogy ; and its only claim to the title of science at all is the strict observance of scientific method on its part in exercising its own special function. It has to establish certain principles by determining the exact correlation of its several factors with the view of ultimately arriving by science alone at a solution of the problem of problems, the primary origin of man. It can only do this, when in its present initial stage, by means of strict inductive reasoning and the accumulation of authentic facts. When it stands upon firm ground, it is perfectly right to popularise its ascertained results and exhibit its method. When this society contributes new facts, it is right to do so in public. But when it talks beside the purpose for talking's sake, or unduly stretches its purpose so as to catch within its net everything comprehensible, it is no more a scientific society than Discussion Forum or Codgers' Hall. Public discussion of minute points of comparative physiology or comparative philology before a jury of ladies—long-haired and empty-headed ones, as the Turks say—for referees, is simply turning scientific research into a thing like Mr. Spurgeon's lectures on shrew-mice, or Mr. Bellevue's lectures on Milton. In this way they discussed a point of Celtic philology a year or two ago at a meeting of the British Association, by inviting two disputants to speak Gaelic against each other. This was as if the great geologist who then and there presided had invited two rival theorists to settle the question of a geological formation by picking up the stones and appealing to the test of a cockshy. It may have amused the ladies, but it certainly killed the science. Yet the only object of handling the matter at all on such an occasion should have been to show the outer public that philology was science, not guesswork. A rival body, the Anthropological Society, disapprove of this way of going on. Possibly they are envious of it, as their *casus belli* with the ethnologists appears to be the possession of their platform, or some of their platform, at the British Association. At all events they reprove it openly, and craftily advertise physiological discussion *without* the ladies, much as the knowing Whitechapel baker advertised his bread *with* the gin in it. It is for the ethnologists to see that their smart and go-ahead offset, which parted from them in anger like the United States from England, does not ultimately increase and multiply and drive them out of the market.

They had a field-day last week, and it is worth while to examine what they did, and how they did it. The first paper read before them was an excellent instance of their work at its best. This was a careful series of physical measurements made upon the Laplanders, at the instance of the venerable President of the society. Observations made with similar precision among all the outlying races of Europe are rare, and are of great importance. But they are uninteresting except professionally ; and under a ladies' *régime* are naturally postponed to vague speculations or other more attractive matter. The next paper was valuable, but not ethnologically valuable, or only so indirectly. It was purely literary in its interest, being the notice of a Burmese book. If everything were in its right place, and every society obtained or kept to its own work, this would have been contributed to the Asiatic

Society. The third paper was upon the "characteristics" of the South-Slavonian races, and was contributed by Miss Irby. This young lady is already, or ought to be, famous as having travelled long and extensively in Servia and the adjacent countries, and as being animated by a strong enthusiasm in regard to their politics and their religion, which is fed and sustained by a *bond fide* knowledge of their language such as is not only remarkable, but unique, among Englishwomen, or Englishmen either. The ethnology of the Slavonians is unknown ground in England, and a contribution on such a subject by one whose knowledge is derived at first hand, whose head is clear, and whose literary abilities are of a high order—as Miss Irby's certainly are—could not fail of being very interesting, if not striking. Yet her paper, to our estimate of which we are guided by the report of an evening contemporary, however meritorious in itself, or excellent as a magazine article, seems to be of no value as a contribution to ethnological science; and what is of no value to this is of injury to it, for it takes up time and perpetuates unsettlement in method. Ethnologically, observations upon the bravery and moral truthfulness and various excellences of the Servians, if authentic, are good as the groundwork of ethnological conclusions alone, and not of political or any other conclusions. Whether the latter occurred in the paper or not we cannot say. But with Mr. Denton, of all men in the world, who was afterwards called upon to speak, discussion drifted off wide as the poles away from ethnology. This gentleman held forth upon the "resources" of the country and its aspirations after civilisation, and the like, in a fashion which simply amounted to politics in disguise, or trembled on the verge of politics. In common fairness the society now cannot possibly refuse the use of its boards to Mr. Layard, let us say, if ever it should occur to that gentleman to hold forth about the "resources" of Turkey, under the veil of a Nineveh lecture, or to a city stock-jobber wanting to raise the wind for the next new Ottoman loan. This, however, is a small matter. We have to animadvert upon a more serious one—nothing in itself, yet becoming a breach both of justice and good taste when sanctioned, and in some measure made its own, by the society, in its adoption of the present paper. Miss Irby may have travelled in Greek countries, but we apprehend that she knows nothing of the Greek language, the Greek inner life, or the Greek ideals. These things she probably knows well in the case of the Servians. But with this inequality and inadequacy of knowledge, she has no right to institute an *ethnological* comparison between these two races, to the laudation of the noble Slavonian, and to the disparagement of the vapouring and pretentious Greek. Perhaps these hard sayings may be true, but they are *impressions de voyage*, and should not have been treated as first-hand scientific truth. Many people have said worse things of the Greeks than this. But Greeks mind these things the less when they see that they come from people who know and understand them. Mr. Finlay double-thongs them with clean and straight cuts down their backs, and his tenderest mercies to them are cruel; yet this they do not resent—for they know that he understands them thoroughly. The highest praise, indeed, from the mouth of a Greek is that which he

applies to such men as Finlay and Charles Alison, and very few besides. He does not say, *Mās αγαπάει*, "he loves us," but *Mās καταλαμβάνει*, "he understands us;" for he knows that such thorough understanding cannot fail of bringing some sympathy in its train. He may relish or despise ignorant praise, but he naturally resents ignorant depreciation. And the Greeks may most justly do so when it comes to them incorporated in the transactions of a learned society, and invested with all the dignity of scientific observation.

Our Ethnological friends will, we hope, take our remarks in good part, for they cannot fail to see that we are actuated by the desire of consolidating their science, and not of impairing its efficiency. Nor should they fail to see that if they go on popularising the merely unfixed and speculative portions of their researches, instead of the fixed and solid results, they are not planting the tree of science, but merely sowing a crop of thorns and thistles, which some day may be used for their incrimination by their rivals the Anthropologists.

Reviews.

Metamorphosis of Man and the Lower Animals. By A. DE QUATREFAGES. Translated by HENRY LAWSON, M.D. Published by Hardwicke.

We can recommend this book to our readers for careful perusal.

As stated in the author's preface, the present work is a reprint with certain additions and modifications of some articles contributed in 1855-6 to the *Revue des Deux Mondes*. This fact may explain the retention of Van Beneden's somewhat arbitrary nomenclature adopted in 1850 to the exclusion of that propounded by Professor Ogilvie. The system of the Aberdeen Professor, as set forth in his work on the *Genetic Cycle*, published in 1861, will, we think, be found much more simple and suggestive than that of the French savant.

To prevent disappointment it may be well to mention, that the author does not treat of the metamorphosis of man apart from those of other mammals. Indeed, so far as the subject of this work is concerned, man's place among animals is not discussed, but taken as settled beyond dispute.

Further, we have to remark, on the statements contained in the translator's preface, that "in the present volume M. de Quatrefages has brought together all the facts (? facts known) on the subject of generation;" that there are some important facts which are not referred to by his author. For instance, the very curious and important facts known concerning abortion and double monsters—facts bearing on the author's theories, are not alluded to. Now, there is always too great danger of unscientific readers (for whom the work is confessedly written) thinking that they have before them all the facts of the

case when they are not so fortunate as to have them at all. And when a claim of the kind referred to is made under such circumstances as the present, there is really very little chance of escape from the danger pointed out.

We have no space for a summary of the contents of the treatise ; but we cannot conclude without remarking that there is an important chapter on the resemblance of the phenomena of reproduction in plants and animals respectively. Many readers will no doubt find this the most interesting portion of the book.

The translator has done his work fairly, and has conferred an obligation on the reading public of this country by facilitating their access to a valuable treatise on an important subject.

GABRIEL DE MORTILLET—*Les Terramares de Reggianais*. 8vo. Paris : 1865.

THIS work is devoted to a detailed description of the deposits which exist so frequently in the Duchies of Parma and Modena, which contain ashes, charcoal, bones, pottery, and other human evidences. These lands are termed *terramares*. They were once considered to be the sites of ancient cemeteries, or at least spots chosen for funeral sacrifices. But as these remains contain besides human bones those of animals which have served for food—as the pottery is that in common use ; as with the bones and shards there are found portions of pavements and walls, hand mills, ashes, *scoriæ*, and moulds which have been used to cast from, all in bad condition, and unmixed with religious objects, Professor Mortillet considers these remains to be evidences of the refuse of human dwellings, similar to the *kjökken-møddings* of Denmark or the pileworks of Switzerland. Strobel and Pigorini have described the *terramares* of Parma with great care, and their report is incorporated in Cav. Gastaldi's work on this subject. Canestrini has investigated those of Modena ; and the present work is devoted to a description of those which are found in the neighbourhood of Reggio. He draws especial attention to the remains which have been discovered at Castelnovo di Sotto, which he considers to belong to the true stone period, and attempts to correlate in age with the specimens obtained from the Swiss lake habitations at Moosseedorf. The facts upon which the inference is drawn appear to us to be very slight, and the broad generalisation appears to be arrived at, that the pre-historic remains of Northern Italy are evidences of a people certainly far superior in civilisation, and probably much later than the denizens of the Swiss lake habitations.

MALTEBRUN—*Annual Address to the Société de Géographie de Paris*. Paris : 1865.

WE cannot but be struck with the contrast which prevails between this masterly exposition of the progress of geographical science during the year 1864, and the dull rhodomontade which habitually forms the staple of the annual addresses to the Royal Geographical Society of London. We are also glad to perceive that many of the important

discoveries which have been made during the past year have been made by Englishmen, in spite of the admitted decadence of geographical science amongst us. A few interesting details are given us here on the populations of Upper Nubia, as well as some valuable facts relative to the Ainos of Sakhalien island. These once inhabited the whole of the island, but have given place to the Gilanes at its northern extremity. The Ainos are short, squat, badly built but powerful men, with eyes unlike those of the so-called "Mongolian" form, but set in the head like those of Europeans. They are of a tanned white complexion, and the hair which covers the face and nearly the whole body gives them an appearance of savageness which is irreconcilable with the native goodness and mildness of their disposition. The females draw a blue line around the corners of the mouth. When a bear is slain, great respect is paid to it, as to a divinity, and it is only cut up after prayers have been addressed to it; and its head, reserved as a talisman, is suspended to the roof of the hut. The fish is also one of the deities of the Ainos.

Notes and Queries.

With reference to the discussion which took place before the society, and in which the use of blood was mentioned (*Journal*, vol. iv, p. xxx), let me note that in 1734 a book was published on this subject, under the title of *A Defence of the Inquiry about the Lawfulness of Eating Blood*, by a Prebendary of York, 8vo., 1734.—K. R. H. M.

Mr. E. G. Squier, the well-known anthropologist, has returned from Peru and Bolivia with the results of several years' exploration. These he will shortly present to the scientific world in book-form.

On the authority of a gentleman who has recently returned from Brazil and equatorial America, we hear that for a long time past there has been a gradual lowering of the temperature of the gulf stream, and this in its turn is affecting the climate of the European countries who receive the last current of the stream. It would be interesting for anthropologists to observe how far this statement may be true and in what way it may act upon temperament and character. The action of terrene phenomena upon the floras and faunas of the different countries is a well-known fact, and there is no reason why man should be excluded from a similarly rigorous scientific study. COSMIST.

"The Anthropological Society is doing good service to the cause of justice and humanity in sending out a special commission to Jamaica, to inquire into the causes of the late insurrection. Mr. Pritchard, the gentleman who has undertaken this not very easy task, is also a man pre-eminently qualified in every way for the duty. His large experience among aboriginal tribes in other parts of the world is thus

being made available to the solution of many questions of the utmost importance, and the society under whose auspices he goes is at the same time showing a commendable desire to be of practical value to the community. It has been of the greatest importance that some gentleman should proceed to Jamaica who would look at the relations between the various races there from a different standpoint to that which interested observers might take. It was essential that one should go who would institute an investigation without either the prejudices of religious faction or the trammels of Government nomineeism, but fairly and impartially, as well as scientifically, to judge things for himself and for society. For this purpose we believe that a better man than Mr. Pritchard could not have been found, and we shall look forward with great interest to the report which, in a few months, we may expect to receive from him through the agency of the Anthropological Society."—*Court Circular*.

At the anniversary meeting of the Hereford Natural History, Antiquarian, Philosophical Society, the *Hereford Journal* says, Mr. Mackintosh amused the company with sketches of the late meeting of the British Association at Birmingham. He spoke of the majority of those attending the general committee meeting, though embracing the cream of learned societies, as presenting much more ordinary looking physiognomies than one might have expected. He, however, excepted Lyell, Murchison, and Phillips, and referred to the enormous development of brain presented by the first-mentioned of these philosophers. Dr. Lee, of the Hartwell observatory (a gentleman who came out of his way on his return from Birmingham to pay Mr. With, of this city, a visit), presented a very fine Roman profile. He then enlarged on the reception with which the Anthropologists met at the meeting, and on the storm their presence created in what otherwise would have been a rather dull occasion. He exonerated the Anthropological Society of London from believing in the ape origin of man. The Very Rev. the Dean then rose to thank the gentlemen who had so kindly entertained them. Mr. Havergal's paper was exceedingly interesting and important, and he could not but admire the facility with which Mr. Mackintosh rendered abstruse subjects simple and entertaining by his sketches on the black-board. He (the Dean) did not quite agree with the heavy physiognomy attributed by Mr. Mackintosh to some of the British Association, unless it might have been caused by circumstances connected with the meeting. He personally knew many men of science, and had always found them very agreeable companions. Of course he did not include those who believed that they were descended from the gorilla, for they might well be accused of appearing dull.

THE BLACKS OF QUEENSLAND.—Extract of a letter received from Queensland, dated "Northampton Downs, Barcoo River, September 20, 1865 :"—"I will do my best to get some blacks' skulls. I have already mentioned it to several fellows, in case they should have any accident in that way. I hear they shot two blacks at the next station, twenty-five miles off, only a day or two ago, whom they

caught killing one of the working bullocks; this is the result of letting the blacks be up at a station. They are a most degraded race of beings. I cannot possibly regard them as men and brothers; in fact, I do not think they are, although I cannot elucidate the mystery of their origin. I heard that one of them had settled the parentage of the monkey tribe. I did not know whether the Anthropological Society would be interested to know how. The story goes thus: A gentleman having a black (native) boy brought up as his servant, took him to Melbourne, and while there to the Zoological Gardens, the black fellow was struck with astonishment at the cage of monkeys, and refused to leave them. His master asked him, 'What name, that fellow?' 'Baal mine know,' replied the black fellow; 'mine think it black fellow go into um 'possum.' At any rate, the black was by no means ashamed of the supposed offspring of his race."

Extract of letter from Professor Antonio Raimondi, Arequipa, Nov. 5th, 1865, to W. Bollaert, Esq.

"It is now more than two years and a half since I left Lima on my researches in the South of the Republic, and as yet I have not quite gone over the itinerary I proposed to perform. Nevertheless, the end is approaching of my long journeyings. So about the end of January I shall be on my return to Lima.

"I have written a memoir for the Anthropological Society of London; but although I have had it ready since last year, I do not send it forward, because I want to refer to some of my books and journals I sent by mistake to Lima some time since. However, on my return to the capital, I will send the said memoir to Europe.

"If the journeys have been long and painful, I have been compensated by the discovery of a large portion of new materials for my forthcoming work, and for many scientific memoirs, seeing that I have travelled over many unvisited regions. You, as one of my old companions, can easily conceive the quantity of matter I must have collected in two years and a half, continually on the move, and without much time for necessary rest.

"I now need a little repose, so as to place before the world something relative to the regions that have been studied so little. The moment I get to Lima, I shall publish a 'Memoir of the province of Carabaya,' and will forward a copy to the Anthropological Society."

Mr. Bollaert has also had letters from J. S. Wilson, Esq., from Esmeraldas and Quito, informing him that Mr. Wilson has been exploring much of the interior, and is preparing some anthropological observations for the society.

INHABITANTS OF TIENTSIN.—The men of these parts are among the largest in the world—certainly much larger than the people of England. Although so surrounded with dirt, they appear clean in their persons, and were frequently dressed in long robes of white, with white trousers, gathered into their curiously formed boots and shoes. They walked under the rays of a sun unequalled in power, save in the north-west provinces of India, with clean shaved heads unprotected by any covering. Their tails were formed entirely of their own hair,

not as in the south, with a large intermixture line of silk ; nor reaching, like those of Canton and Hong Kong, to their heels, though far handsomer, for I began to understand and appreciate tails. Old women were frequently met in the streets, and pretty young girls, disfigured by the usual deformity. Young woman would run to the doors and corners for any sight attracting curiosity. They dress the hair, combed off the forehead, decorated with artificial flowers, and fastened in masses on the top and at the sides by golden skewers, which appear to be among their most valued and highly-wrought ornaments. Not unfrequently their faces were powdered and rouged. Though generally the citizens are well dressed and have a comfortable look, there were many of the most hideous objects.—*Travels in China.*

“ Four million sermons a year, says Dean Ramsay, are preached in Great Britain. What a thought ! and how pregnant with other thoughts ! In how many of these sermons, we wonder, is St. Paul's opinion taught, to the effect that though faith is a good thing, charity is a far better ? Conceive the gigantic listening power of the British mind, that can maintain such a tremendous institution in existence from year to year. Consider, again, how many of these sermons would be preached if the fairer sex were not allowed to go to church or chapel. If congregations were made up of men alone, would any sermons be ever preached ? Again, suppose no persons were allowed to go to church in their best clothes, what would be the appearance of our churches, both in town and country ? What portion of the female sex would find the attractions of a preacher a sufficient counterbalance to the annoyance of being compelled to appear in their everyday and working habiliments ? Further, supposing that no clergyman or minister was permitted to preach against anybody else, would sermons continue as numerous and as long as they now are ? Supposing no Protestant was suffered to attack the Pope, and no Catholic priest to assure his hearers that Protestants will be damned, would sermons diminish in quantity as they rose in quality ? Once more, is there any hidden connection between the fact of these four million sermons and the ten thousand outcast boys of London ? Are these miserable pariahs of the English race in any way the result of this perennial flux of talk, and of the ‘ Christian zeal ’ for the conversion of black people which it encourages ? Some of these questions may be purely speculative, but surely some of them are to the last degree practical.” —*Pall Mall Gazette.*

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THE PRINCIPLES OF ARCHAIC ANTHROPOLOGY.*

WHEN Sir Charles Lyell, thirty years ago, published his *Principles of Geology*, a great part of that work was taken up to prove the recent appearance of man on this globe, simply on the negative evidence that no traces of the human body or of the works of his hands had then been found. The learned author has, however, lived to atone for his erroneous teaching, and is now one of the most zealous supporters of the high antiquity of man. To a geologist, there is no doubt an attraction in looking at all questions with reference to time, but to the student of mankind—the anthropologist—time is an element of little moment. The students of mankind did not require the discovery of worked flints to convince them that man was not of recent appearance on this planet. Indeed the logical advocates of Monogeny have always been sensible that the chronology proposed by Archbishop Ussher, and accepted by the masses of mankind, was utterly untenable.

Since the publication of Lyell's *Antiquity of Man*, in this country, the tide has turned with regard to that chronology, and all appear to unite in bearing evidence of "extreme antiquity" in every worked stone or bone which is turned up from beneath the surface. Men now see evidences of antiquity in all directions. The daily newspapers continually record the discovery of evidences of great antiquity, based on suppositions which, a few years ago, would have been thought profoundly absurd. This is a great change, and we shall do well to examine into not only the cause, but also into its *rationale*.

I shall have to touch on the following points:

1. What is the value of the pretended discoveries of evidence of man's antiquity, which are based on Archaic Anthropology?

* Extracts from a Lecture delivered to the Hastings and St. Leonards Philosophical Society, January 31st, 1866. By Dr. James Hunt, President A.S.L.

2. What are the principles on which our researches shall be conducted?

In the first place, I must explain that by *Archaic Anthropology* I mean the past history of mankind, as deduced from the study of his osseous remains or works of industry. There is another wide field of research, throwing light on man's history, on which I shall not be able to touch to-night; this includes such subjects as mythology and traditions, and belongs to an entirely different order of facts to those under our consideration.

Some six years ago I had the honour of reading a paper to this Society, on the "antiquity of man as deduced from the discovery of flints from the drift."

I am sorry to differ from many of my friends who then opposed my views, but it still appears to me that these and similar wrought flint implements, are the only reliable geological evidences we yet have on this subject. Since the time, however, of my former paper, the discovery by M. Desnoyers of supposed artificially cut bones, in a still older geological deposit, would, if accepted, carry back the antiquity of man to a still earlier date than the worked flints found in the drift.

I have said that this is the only really satisfactory geological evidence of the extreme high antiquity of man; that it is the only evidence which carries back the origin of man more than some hundreds of thousands of years. There are, however, other discoveries which help to shew that there was no foundation for the theory a short time since generally held for the recent appearance of man on the earth.

I have no dogmatic opinions to offer on this, or indeed on any other subject; all I wish to do is to throw out for your consideration a few suggestions, the discussion of which may assist in elucidating an expression of opinion on the question, and result, let us hope, in removing the somewhat unjust antagonism which arises in minds accustomed only to one mode of thought, when any deviation from the beaten track is but suggested.

An eminent author was once writing a work on Iceland, and one of his chapters was headed, "On the snakes of Iceland." On referring to this chapter it contained simply these words: "There are no snakes in Iceland." I feel inclined, in treating of the principles of *Archaic Anthropology*, or, as some prefer to call it, of *archæology*, to follow this example, and say there are no principles of this science yet in existence.

Archæology has not yet been considered a science, although such rapid advances are being made every day towards this end, that ere long it may be hoped that it will rank amongst the sciences. It is not generally known that *archæology* is excluded from the annual meetings of the British Association, and at the last meeting Sir Roderick Murchison officially announced that *archæology* did not come within the range of the objects of the Association.

Sir Roderick on that occasion remarked that "the British Association had made no change for thirty-four years." Such, however, is

not the case with the science we are considering, the really scientific portion of which is generally known under the title of "archæology." The vague and unsatisfactory meaning which has been given to the word archæology, however, has no doubt greatly tended to bring about much misconception with regard to this important and highly interesting branch of science.

When travelling recently in Scotland, Orkney and Shetland, I was much struck with the imperfect way in which many of the excavations have recently been carried on. I must, however, in justice to the people of Scotland, say that I believe they are as really scientific in their methods as their English brethren. The Museum of the Society of Antiquaries of Scotland, is a monument of which that country may well feel proud. Even in the Zetland Islands there is a small local museum. A few years ago there was one in the Orkney Islands, but from mismanagement it is now unfortunately dispersed. While in many of the chief towns of Scotland there are museums of no small interest.

I mention these things because one of the first conditions of the success of this science is the collecting and storing together of the objects which have been found in different localities. Such museums are, however, of no real value unless the specimens are carefully labelled, and this is certainly not the case with some of the museums in Scotland. There is, however, an earnestness and a zeal amongst the archæologists of Scotland, which bid fair to produce in that country a science of the highest value as illustrating the past history of that part of the British dominions. But what now appears to me wanting in these researches is some general direction or inspection of the researches of the different students. There are, no doubt, great difficulties connected with such a plan, but they are perhaps not insurmountable. We want unity of action on the part of all students who are interested in the past history of man in this country, to aid in the endeavour to throw more light on these questions than now appears to be done by independent inquirers. It is generally supposed that such a supervision would not work satisfactorily, inasmuch as it may be thought to shew a want of confidence in individual workers. But such I believe would not be the fact. When in North Britain, more than one student asserted his willingness to undertake exploration if he were only directed how he should proceed. Scotchmen are fully alive to and sensible of the injury done to science by the partial and incomplete excavations which have been carried on there. They now very naturally ask for advice and assistance. Now ought it not to be one of the principles of Archaic Anthropology that a verification of the facts of different students should take place? Are we not likely to get far better and greater results from a careful comparison of the different classes of antiquities found in various parts of this, and indeed of other countries? Is it not advisable that isolated theories of independent workers should be harmonised with the opinions and conclusions of other workers? The question also arises, would such interference assist the progress of our knowledge of the races of men who formerly inhabited this country?

It may be said that the archæologist has so many other objects than those comprehended in what it is proposed to call archaic anthropology, that it would not be worth his joining for such an object. Such objection, however, I assert to be groundless. Some of the more important antiquarian societies of this country are now convinced that they are much to blame for having so neglected the collecting of ancient crania. They are just now becoming sensible of the value of anthropological science, and see that all really scientific archæology is simply a portion of the science of anthropology.

The question arises, is it the duty of the different societies more or less devoted to the past history of mankind, to unite for this object? In France the government undertakes this duty. In England, however, our chief scientific societies decline government patronage and support. The Geographical Society is nearly the only society which obtains any great part of its income from the public purse. I have no doubt that if the scientific societies of England devoted to the past history of man, could fully realise the benefit of such a plan, it would be adopted.

We have not yet sufficiently compared the different discoveries made in the various parts of England, with those made in Scotland, Wales, or Ireland. We have not even compared sufficiently the larger divisions and differences existing between the different continents. The geologist is obliged to go through considerable training before he is enabled to speak on his science, but the archæologist is too frequently entirely untrained to his work, and in making his researches overlooks much that is of importance to the student of man, regarding objects of antiquity rather as rare specimens than as unerring indices of the race who wrought or erected them, and but little considering the position in which they may have been discovered, or seeking to read from these combined evidences the story of the industrious hands that assisted in their construction. The field of Archaic Anthropology is very vast. It is nothing less than the history of humanity for thousands of years, deduced from the traces left of his existence. Indeed, so vast is this science, that we are as yet unable to indicate the different order of researches which may arise. Great, however, as is this branch of science, it is far less extended than that comprehended under the words archæology. The Professor of Archæology in the University of Cambridge, the Rev. Cardale Babington, has recently observed, "Archæology concerns itself with the domestic and the social, as well as with the religious, the commercial, and the political life of all nations, and of all tribes in the ages that have passed away. All that men in ancient times have made and left behind them is the subject of our study."* Now what I purpose to include under the name of Archaic Anthropology, embraces far less than this, but is still an important branch of science.

Dr. Hunt then briefly touched on the various subjects which constitute the science of Archaic Anthropology, in which were included geological stratified evidence, peat, underground structures, cromlechs, stone

* Babington's "Introductory Lecture on Archæology". Cambridge: 1865.

chambers, cyclopean architecture, stone circles and monuments, lake habitations, tumuli, kitchenmiddens, worked flints and stones, the use of copper, gold, bronze, and iron, and the formation of inscriptions. The lecturer, in conclusion, made some remarks respecting the care to be exercised and the knowledge required by those who undertook investigations into the Archaic Anthropology of this country, and gave some instances where neither this caution nor knowledge had been exercised, which had recently come under his observation. He concluded as follows: I need hardly say that it is absolutely necessary that Archaic Anthropology should be a thoroughly inductive science. The great misfortune under which we are now suffering, is the speculation which has been introduced into this subject. It has also not been sufficiently realised how unsatisfactory it is to take the antiquities of one's country and endeavour to apply the order of stratification or of antiquity to another locality. Thus the Scandinavian antiquaries have endeavoured to apply the order of succession of metals in their own country to Great Britain, and the result has been most unsatisfactory. It does not at all follow that because the order of succession of stone, bronze, and iron, is quite true in Denmark, that it shall be also true in any other part of Europe. We must always study the historical remains of any country, or of any part of a country, in connexion with race.

The monuments of Egypt teach us that there has been no perceptible change in some of the races of man during the last 4000 years, and although we have traces of different races inhabiting different parts of Europe, they do not differ in any essential character from the races at present in Europe. Future discoveries may reveal facts on which a different conclusion may be based. It is the duty of men of science, while announcing the logical deductions of the facts at present known, that they shall at the same time always be ready to make fresh deductions from any new set of facts which may be discovered.

ANTHROPOLOGY AND SOCIAL INNOVATION.

PRACTICAL anthropology can never be fully carried out without a cordial recognition on the part of society itself. That congeries of hidden influences which form the chief machinery acting upon man in his social state, is as evidently subject to fixed law as any inorganic substances; our only difficulty being the localisation of phenomena, so as inductively to arrive at their causes. To the social state of mankind every event of history is necessarily subordinated; and, though the careers of ambitious men sometimes seem to rise above the commonweal of nations, and to sway the social conditions of peoples, yet the influences exerted by such individuals rarely leave any mark upon the social state in its integrity. Great grief, sudden calamity, the march of armies, or the progress of science, agitates the social state but in a momentary way; and man, the great prob-

lem of the universe, with his complexity of passions and wants, his infinite mental superiority and frail bodily nature, remains still subject to the commonest wants, and ruled by the most animal of propensities.

It is not proposed here to elevate man into the position of a demi-god; it is not the object of the writer to talk the jargon of the middle ages, and use the terms microcosm and macrocosm; far be it from us to discourse learnedly and mystically of objective and subjective. Regarding man as a truly complex being, the practical contrast between his natural frame and that educated concretion of prejudices and errors, termed his character and opinions, becomes a most absorbing and interesting study.

Few readers of history, when laying down some records of man's doings in a national sense, have not speculated upon the possible future which might have arisen, had one link of the chain been otherwise than it was. A French philosopher—Voltaire, we think—devoted a dialogue to the logical proof of the fact that the death of Henry IV of France by the dagger of Ravallac, was actually caused by the accidental putting forth of the left foot instead of the right of a Brahman, on the banks of the Ganges. Yet, lamentable as the death of Henry IV was to France, strangely different as might have been the history of that country, had that remarkable monarch realised his favourite dream of every subject being fed upon chicken-broth, it cannot but be evident that the world, with its petty cares and every-day sensations, went on in the beaten track, and, like the stellar universe, fared forward without sympathy or change. There is a stolidity in every-day existence, over which the sublimest discoveries, the highest aspirations of the mind, have no control. This points to some anthropological law, working under the surface, of which at the present time we see the effects without knowing the principles.

Our versatile relations on the other side of the Atlantic have invented, or rather modified into use, an admirable verb, expressive of this singular faculty of man. They talk of "to recuperate", and recuperation is a process in which nationally they have a vast faith. There is an unconscious fitness in this phrase, and it may well arrest our attention, standing, as we do in our present attitude, near the threshold of psychical anthropology. Modern science, guided by the principles, though not always using the processes of positivism, has banished the metaphysical view of man to a limbo of utter vacuity. Early anthropologists formulated their science *à priori*, and sought to account for man's peculiarities from the mental energies and beliefs he exhibited. Modern anthropologists adopt, with a few exceptions, the opposite rule, and look at man as a feeding, laughing, and argumentative *animal*. But when we come to look at social innovation, at the reasons for an elevation of the races into a permanently better condition, neither of these views of man appear satisfactory. To say nothing—for really so much has been said that it is refreshing to omit the black draught occasionally—to say nothing, therefore, of the Negro, it is a matter for earnest contemplation to observe the very slow development, both historically and socially, of what are admitted

by moralists and hygienists to be the better mental and physical states of mankind. Progress is a word employed by the flies on the wheel of humanity; and there is a grim humour in the catastrophes which occasionally defeat man's objects. It is not proposed to assert that any evil divinity prompts the catastrophes so named; but the recognition of a repressive power in the law of human evolution is inevitable.

This repressive power, or this operation of a law of repression, meets us on every side; it is political, and meets us on the opposition benches of St. Stephen's; it is religious, and starts up in Puseyism (plus Pusey que le Pusey) and Spurgeonism; it is scientific, and bristles in the pamphlets of "Parallax", and the paradoxes of De Morgan. In the arts, we encounter it in the inventor who is kept down, or the discoverer who cannot formulate words to describe his invention. Go a step lower, and even the "fast" man, an interesting genus fading away and being superseded by the pale and superficial scorbutic youth with blue spectacles—even the "fast" man, with colloquial brevity, says "there's a screw loose."

It may be urged on the part of the reader, that the preceding paragraph is hardly fitted for the pages of a magazine devoted to scientific purposes; but it is a fair question to put in reply, whether, on looking at anthropology in its practical effects upon man, we have any right to omit the consideration of the smallest element of society? The meanest insect that crawls forms an integral part of the science of entomology; and the meanest and most (apparently) foolish man is an element in applied anthropology.

Our object, however, was rather to draw attention to the fact of the wide-spread discontent socially existing. Panaceas of every kind, like cigar-lights at a railway station, are proffered by political pedlars on every hand; while the broad open daylight of true science is disregarded. The materials at hand, the institutions amongst which we live, are all amply fitted for healthful purposes. It is only the general disinclination for exertion that prevents their happy application to the problems of social life. Perhaps the highest proof of human advancement consists in the self-confession every man makes to himself of a higher law—his ideal, sacred beyond everything—that which would be debased by the formalism of a profession of faith; in fact, the unveiled Isis.

Here, then, abstracted from the dull and useless hulls of ritualism, may we hope to find the true key to psychical anthropology, to that division of our science which is the most important for the purposes of general conciliation. Unless the great mass of our fellow-citizens can be stirred into an acknowledgment of the existence of this innate and "recuperative" faculty—call it hope, shame, conscience, confidence, what you will—we can never expect to found a practical social science, an application of anthropology which shall be at once merciful and just, intelligible and active.

What, then, it may be asked, should be the first step to a recognition of the *necessity* for the establishment of a social science not founded upon metaphysical appreciations of man's nature? It should

consist in the postulation of facts, and an immediate process of trial. The cardinal principle of social existence is implied, after all, in the admission that circumstances make men. The Egyptian king, who taught the infants the language of goats, subjected the objects of his experiment to circumstances, and did not pause to consider what he was doing. The same application of time and capital might have made the children good average citizens, seeing clearly their position in the world, and forming no medium for the realisation of that abstraction—a universal language. Once agreed that circumstances form men, we can proceed to a satisfactory amelioration of those circumstances, and a distribution of professions according to fitness and taste.

That great social innovator Fourier, was not far wrong in pointing out his principle of attraction towards employments. Of course it is needless to refer, except in the way of apology, to the existence of a numerous class of unpalatable employments; yet even these, distributed among intelligent men, might prove less distasteful than the dirt throwing we sometimes see.

There is one curious fact in reference to social innovation, and that is, that the reformers have never discriminated between political and social conditions; yet they admit, by the very fact of legislation, that it is impossible to legislate for the individual. In the time of Nero, that interesting emperor granted to a Greek philosopher one of the cities of Magna Græcia, in order that he might test the experiment of a republic according to the principles of Plato. The obscure scholiast whence the statement is taken, reports nothing as to the result of the experiment. Plato proposed the abolition of almost all poetry, as pernicious to the social state; and yet, anthropologically speaking, what is more potent than ballad literature and traditionary epics? Even in our own age, amidst the squalor and factitious splendour of the respective regions of Seven Dials and Kensington Palace Gardens, the ballad holds its own; and no political legislation has entirely put down the wandering organ-man. And what is this love of music, this feeling of tune, but an inherent recognition of that inner "recuperative" principle which, despite his own will, accompanies man from adolescence to the grave? There is a firmness in man, independent of all forms of government, a will to enact, a purpose to attain; and our social philosophers, buried in statistics and *à priori* schemes, omit the consideration of this important element.

One of the most curious social problems in existence, is the due appreciation of the gravity of offences. How to apportion punishment is, indeed, a topic of mighty importance! If Jack get a whipping for stealing a hatful of apples, do the stripes deter Bill from the enterprise? No; practice teaches us the contrary. And in a more grave instance, public executions for murder are followed by murders in an increasing ratio. Hitherto the writer has kept in view the higher law governing man's being, and the sudden introduction of murder may appear strange. Yet it is not so. No truth is without its shadow; an obverse implies a reverse of some kind. And, while taking in a general way a cheerful view of this innate psychological characteristic

of man, we must not forget that, acting according to the laws of its being, it will as readily do evil as good. The eternal controversies of the Platonists and Neo-Platonists as to τὸ καλόν and τὸ ἀγαθόν, might have been ended, had anthropology evidenced the passionless character of human emotion—the law of human character which provokes the strangest vagaries in the same person.

It was more for the purpose of indicating this primary principle in man as a useful centre for the consideration of anthropologists, that we have brought it forward. Psychical anthropology, when applied to practical purposes, must come to every home; the passions of children, the enthusiasm of youth, the fitful despair of advanced age, and the steady glow of a hopeful intellect, steeled from youth to a patience of “the stings and arrows of outrageous fortune”—all these may be diagnosed and classified by the practical anthropologist with great advantage. His diagnosis will thus contribute to a knowledge of race-character, and pave the way to a better future state.

RENAN'S LIVES OF THE APOSTLES.

AN important work has recently been published in Paris, the fitting sequel to the *Vie de Jésus* of the same illustrious author. It is the duty of anthropologists, while the din of theological bewilderment is passing over their heads, to attempt to discover whether any true lessons can be derived from the perusal of this work, and in what way the problems, which M. Renan so often suggests, can, when solved, produce certain results, not merely on historical, but on general anthropology. These questions can only be solved by reference to the few passages which M. Renan devotes to the science of man. With theological disquisition, considered *quoad hoc*, we can have little to do; on the bearings of the present work, in an anthropological aspect, we might have much to observe, if space permitted us. For when that early conflict of Shemitic schools of thought, amongst each other, which is called the period of the Apostolic Fathers, took place, changes arose in the social and religious state of mankind, which are well worthy of the attention of the thoughtful anthropologist. In a paper which the President of the Anthropological Society read before the British Association at Newcastle, in 1863, it was justly said that he gave, as a first principle of anthropological classification, a far higher value to religion, and to art, than to language. “It was possible to change the language of a race; but apparently impossible to change either their religion or their innate ideas of art.” Apart from the superficial and arrogant theories of Burnouf, we are not aware that anthropologists have ever been so distinctly placed before the great religious enigma, as they are now by the publication of M. Renan's work. M. Renan certainly brings to bear extensive knowledge of the history of the Shemitic nations, as well as an autho-

ritative acquaintance with their languages, which it would be well if his assailants could either imitate or equal.

We have been a little amused when those students, whose solitary fortifications in Biblical criticism, may rest on the foundation of *Clarke's Commentary on the Bible*, or some other dust-heap of the eighteenth century, argue moot problems of Shemitic lore with enquirers whose duty it may have been to be in some slight degree acquainted with modern knowledge. Of course, intolerance in these matters is precisely in the ratio of absolute ignorance of the subjects discussed. Those who consider that M. Renan is a "German philosopher," and consequently bad, may rest in the blissful thought that they are unacquainted with either French or German philosophy, and might, if they cared, further console themselves with the thought that "moral responsibility" may not be always exacted from the microcephale. We will let M. Renan, however, speak for himself.

"Certainly, the formation of Christianity is the greatest fact in the religious history of the world. But it is not, for all that, a miracle. Buddhism and Babism have had martyrs as numerous, as exalted, and as resigned as those of Christianity. The miracles of the foundation of Islamism are of an entirely different nature, and I avow that they affect me little. It ought, nevertheless, to be remarked, that the Moslem teachers give, with regard to the establishment of Islamism, its diffusion like a train of fire, its rapid conquests, and the strength which endues it everywhere with such a powerful sway, the same arguments which Christian apologists make with regard to the establishment of Christianity, and in which they pretend the hand of God is clearly visible. Let us grant, then, if they wish it, that the foundation of Christianity is a unique fact. Another absolutely unique fact is presented by Hellenism, understanding by this word the ideal of perfection in literature, art, and philosophy, which Greece realised. Greek art surpasses all other art, as much as Christianity surpasses all other religions, and the Acropolis of Athens, a collection of great works, by the side of which all others are but unfortunate bumbles, or more or less successful imitations, is perhaps that which in its kind more than others defies comparison. Hellenism, in other words, is as much a prodigy of beauty, as Christianity is a prodigy of holiness. A unique event is not necessarily a miracle. God has various degrees in everything which is beautiful, good, and true. But it is never in a manifestation so exclusive in nature, that the breath of God in a religion or philosophy ought to be considered as a privilege or as an exception." (Page 51, Preface.)

We have been struck, when reading the above passage, not merely with the objective relations which Christianity, *e. g.*, may bear towards Buddhism or Mohammedanism, but with the actual subjective question which arises, "What is Christianity?" Here, of course, there may be many answers. The orthodox will respond according to their belief. The reader of Saisset will say that Christianity is a form of Neo-Platonism, and that Alexandrine philosophy welded what had been established centuries before the advent of Christ; while those who are wholly unacquainted with the spirit of Shemitic thought,

will say, "Oh, Christianity is simply Paulism; Paul was the founder of Christianity; the Jews were very good men, no doubt, yet it is to S. Paul that the real formative force of Christianity is due." This represents much of the popular belief, and we are glad that one gifted with the learning of M. Renan has utterly annihilated this vulgar misconception. Compared even with S. Barnabas, Paul falls into a subordinate phase in his work. The "Apostle of the Gentiles" may certainly be accorded much honour, but we must recollect that no supremacy was accorded to him amongst the apostles. We must therefore take the manifestations of early Christianity, either according to the orthodox belief, or as M. Renan has described them; we must watch them throughout the period described in the Acts of the Apostles, a narrative which is of the highest anthropological importance, inasmuch as in its pages is narrated the transference of the seat of ecclesiastical government of the early Christians from Jerusalem, the centre of Shemitic life, to Rome, the centre of Hellenic and Latin intellect and devotion. Jurisdiction has since rested where the early Christian advocates sought for a haven of refuge.

Shemitism, like many other psychological manifestations, polarises. Any one who regards a lake whose surface is rippled by the waves, will notice the greater purity of the water in the centre, at the same time that a few rapid and forcible strokes will impel him to plunge far away from the latent scum which infests the edges of the pond, produced by dirt which can go no further, and will remain self-polluting for years to come. Confined as Shemitism is to a limited geographical zone, stretching from Canaan to Caledonia in a north-westerly, from Canaan to Beloochistan in a easterly direction, it naturally finds its best elements diffused near the centre of its geographical area, its worst at the edges, where it becomes in contact with Odin-worship on the one hand, and Buddhism on the other. The Shemitism, for example, with which Scotland has been inoculated through mistaken ideas as to the value of the Scriptures, has executed a far more baneful influence over the world's history than the Shemitism of ancient Israel. The ancient faith had a beautiful tradition; the modern belief has neither use nor beauty. Beyond the Tweed, and even in some parts of England, the Bible, it is true, may glitter in a showy binding on the bookshelf, but the Baal-fire on St. John's Eve shines far more brightly on the hill. Centuries of Shemitic influences have failed to change the essential nature of the religious creed. An imperfect Christianity extends its deleterious influence over England, Scotland, Scandinavia, and Northern Germany, but the feeble nature of its organisation and the vagueness of its tenets, precludes any complete extirpation of the ancient faiths. We are, in many parts of England, as essentially Pagan as ever. Our little children, who learn mutilated fragments of Norse mythology from their nurses, learn too soon to place the heroes of Biblical and nursery legend on the same pedestal. To them the essential evidence of the existence of the one is as good as the proof their teacher is likely to afford them of the other. Both alike are debased. And this tendency which Christian teachers so often share with the infant nurse, this baby-jumping school of *religiosité*

plentifully produces the popular teacher of diluted theology. It is, however, intensely popular; it can be made even lucrative. So long as men are found whose *métier* it is to

"Make matters pleasant with a hell disguised,
And hawk about a Gospel compromised."

so long as the passions and vices of the masses are sedulously preached down to, so long will the essential race-characters of religion be obscured. When people will see that it is by a careful study of race alone that any true knowledge of the distribution of religion over the world can be effected; then, if ever, the so-called "evangelisation" of mankind will take place. Still we must not forget that the Founder of Christianity did *not* say, "Go ye, preach to all nations, and sell them ninepenny Bibles," and until the missionaries who may be sent from Northern Europe do their appointed duty, we are scarcely entitled to blame Christianity for a failure which is probably due to intense ignorance of comparative anthropology.

The candid inquirer who reads the geographical account of the nations whence the crowd of disciples gathered together on the day of Pentecost were derived, must be struck with the small space which all the racial elements described define when dotted on the map. We have Parthians, Medes, Elamites, Mesopotamians, Cappadocians, natives of Pontus, Phrygians, Pamphyliaus, Egyptians, Libyans from the vicinity of Cyrene, Jews, proselytes, Cretes, and Arabians, mentioned in the second chapter of the Acts. Three distinct elements are here recognisable. First come the old Zoroastrine elements of northern and middle Persia, whose magian representatives were the first to recognise the divine nature of the Son of God. Next we have Hellenic elements from Cappadocia, Pontus, Phrygia, Pamphylia, and Crete. The Shemitic race is typified by the Mesopotamian, the Egyptian, the Libyan, the Arabian, the Jew, and the proselyte. The latter element affords, doubtless, a source of confusion. Much Hellenic blood doubtless existed among the proselytes, yet, on the whole, they may fairly be classified as Shemites. Another little thing strikes us. There is no Nigritian element in the whole category. The Egyptians play the important part, to which the importance and antiquity of their ancient faith entitled them; the denizens of the parts of Libya, about Cyrene, sent forth their converts. No Negro race, however, is represented; and the significant silence of the early Apostles, and Apostolic Fathers, respecting these races, is at least suggestive. We are not aware of any definite or unmistakeable allusion to the Negro in the New Testament. The "Ethiopian" eunuch who served Candace was probably either a Nubian or an Abyssinian. Negro queens have never sent messengers having charge of treasure, to worship at Jerusalem. The head waters of the Nile have always formed a nucleus of a kind of debased Shemitism. Whatever effects the baptism by S. Philip of this Ethiopian eunuch (admittedly an individual of high social position) may have produced, it is positively certain, that the "evangelisation" of the true Negro races is as far off now as in the days when the Apostles first went forth. If, just for the sake of argument, we accept the traditions which were current during the early times of Christianity

respecting the fates of the Apostles, we find it is true, that we are told that S. Mark taught in Libya for some time, and attempted to engraft Christianity on the Berbers of that district, yet the more coolly we look at the matter, the stronger the probability arises that the word Libya here is to be used in its restricted sense. There is not the slightest evidence that a single early Christian missionary ever went amongst Negro races. We can only accept this fact as proving one of two things. Either they were not sent to the Negro races, and the "all nations" whom they were ordered to teach were limited westerly by the Desert of Sahara, or else that discretion and great mental power which the most active opponent of Christianity must admit the Apostles possessed, led them not to sow seed by the wayside, where the fowls of the air would soon destroy it. A supernatural or a rationalist exegesis may here be advocated, according to the bias of the inquirer.

But the most significant part of the second chapter of the Acts to an anthropologist, is the entire absence of all reference to the Buddhist elements of religion. It appears strange that the vast and manifold forms of faith which, at a very early period of the earth's history, overspread China, India, and a large part of Central Asia, should not find representatives when the evangelisation of the whole world was at stake. Admitting, even as a hypothesis, that Buddhist elements may have existed amongst the Parthians, the absence of the larger Buddhist types is significant, and remains so, the more we consider the enormous geographical extent which is covered by Buddhist devotees. And if we cast our eyes northwards, and survey the vast plains of Aria, Bactria, and Sogdiana, watered by the Oxus and Jaxartes, recollecting, as we must, that many communications have always existed between these lands and Shemitic territories, the enigma becomes complex. Certainly, the Christian religion, neither in the time of the Apostles, nor at present, has spread in a north-easterly direction.

Shemitic, Hellenic, and Magian elements wafted the banner of Christianity across Western Europe. These, and these alone, comprise the synthesis termed the Christian religion. This would be incomplete without the civilising and ennobling elements of Hellenism; its philosophy would be shallow and incomprehensible without the deep thought of Magianism; while it is to Shemite tradition and Shemite activity that its success can be traced. We see in the faith of Islam, Shemitism without the Hellenic influence. The conquest of Spain by Moors, and its occupation for centuries, has led to much Shemite tradition being preserved therein. When we see how great has been the influence of Mohammedan civilisation in Spain, the mind cannot but speculate as to what must have been the result if Italy had been also conquered by a Moslem population. We should have had a far greater proportion of Pagan usages amongst the Italian population than we now have; while Christianity, paralysed in Italy at the central ganglion of its nervous system, would have shrunk to the effete and etiolated state presented by the branches of the Eastern Church. To those who are disposed to look with gratification on the past, or hope for the future, a calm examination of these topics will indeed be sugges-

tive. They will learn sooner or later that it is by the light of anthropology that all these things can be judged. The most dispassionate inquirers are prepared to admit much that may be at variance with the popular sentiments ; we live in a time when it is hazardous to predict the religion of the future. The fanatic of one school may deny the influence of race ; yet the theological student ought to remember that it is in the writings of the greatest modern divine, as well as one of the world's most honest thinkers—John Henry Newman—that a plea is put in for the recognition of race-character in religion, which theologians would do well to consider. That the same beliefs, or the same practices, would be possible in Italy and in England, can scarcely be conceived, unless the existing population of either country were to be completely extirpated. Anthropological principles will ultimately be a guide before which those unfortunate combinations of evil-minded or illiterate men, termed “Anglo-Continental” or “Church Missionary” Societies, will “pale their ineffectual fires.” The progress of Comparative Anthropology will tend to create a test by which all the differences which now exist, may be classified with as much exactitude as the nosologist classifies disease. To suggest a remedy is quite another thing.

THE NEGRO RACE.*

GENERAL,—The position you are called upon to fill as chief of the Freedmen's Bureau is one of the most responsible and difficult that has ever fallen to the lot of any human being, and for your guidance you will require all the light of the past and the present. There is even good reason to fear that you have problems to solve which are beyond the sagacity of man. Unfortunately, you are the representative of a party (I mean the Abolition or Republican party of the North) who, in the language of Mr. Seward, have been “educated from childhood to hate slavery!” The idea of slavery to you is an abstraction, and you approach the subject of negro slavery with all the prejudices of education, and I fear that your mind, however honest your intentions, cannot be brought to see the real practical difficulties that confront you.

Slavery has existed in all ages, and even negro slavery was common in Egypt 5,000 years ago, and has existed there ever since ; but in the United States for the first time has negro slavery formed the basis of the institutions of a great nation and the groundwork of a peculiar civilisation. Negro slaves in Egypt, both ancient and modern, were rather articles of luxury—like parrots and monkeys—while the true labouring population, the tillers of the soil, were the fellahs, or native Egyptian population, that never wore black. This, then, is

* We have been favoured with a copy of the following letter, addressed by the greatest living anthropologist of America, to Major-General O. O. Howard, Superintendent of the Freedmen's Bureau.

not a mere abstract question of liberty or slavery ; an entirely new question comes before you, viz., that of races, and it remains to be seen whether your party has not raised a storm that will leave nothing but devastation behind it.

When I complained, in a conversation with you, that you had suddenly, without looking to consequences, liberated 4,000,000 of negroes, and instead of shouldering the burthen yourselves, now call upon us in the bankrupt, devastated condition of the South, to educate them and provide for the thousands of coloured people that you have pauperised, you replied that all this was the "work of God !" Now, General, I must very respectfully differ from you on this point. I cannot consent to hold God responsible for what we conceive to be the bad acts of any political or religious party. The so-called "Lord John" Van Buren, on the other hand, thinks that God has taken from this world three whig presidents—among whom is President Lincoln—to make way for the reign of three democratic vice-presidents, and the triumph of democratic principles. Others, no doubt, think that thousands of negroes are dying under your *régime* by the will of God ; and the government officials, who are robbing our people of their cotton, look upon the war, doubtless, as a special interposition of Providence in their behalf. Whatever the intentions of the Freedmen's Bureau may be, it so far has certainly done far more harm than good by sowing seeds of discord between the whites and blacks, unfavourable to the future of both races. We must, therefore, wait for better fruits before we can accept your mission as a Divine one.

The Rev. Dr. Dabney, of Virginia, has addressed you a very respectful letter, in which many of the difficulties you have to contend with are presented with a force rarely equalled. In that communication he treats of the coloured population simply as a simple-minded, uneducated class, ignorant of their wants, without any allusion to the difference of race and consequent difference in capacity for moral and intellectual development. My object is to supply this omission, and to show you from a different stand-point difficulties quite as embarrassing and more permanent than even those to which he has called your attention. I propose to show from the physical and civil history of the negro race, that it is now, wherever found, just what it was 5,000 years ago. Of the question of original unity or diversity of races I shall say nothing ; my intention is to deal with the negro race as it is, and to inquire what position Providence has assigned it in the affairs of our world. The future can only be judged by light drawn from the history of the past, and we ask if there is any reason to expect the next one hundred, or one thousand years, will bring about a radical change in this race, which the last five thousand have not been able to effect ? What good results to this race can you anticipate from emancipation and education when you reflect on the condition of half a million of free negroes in this country before the war—on the condition of those in the West Indies, as well as those in Africa—where this race has had all the opportunities of other races for taking up the line of march in the great work of civilisation.

You will recollect that, in my short interview with you in *Mobile*, I surprised you by saying that your Freedmen's Bureau was the most mischievous institution ever established in this country, both from the demoralisation it entails on the blacks and the antagonism it has produced between the races. Four millions of coloured population are suddenly turned loose upon us—a population ignorant, improvident, and vicious—a large portion of whom are destined to pauperism, and then you tell us coolly that we are greatly mistaken if we suppose that we are not to educate and support them! Now is there not a dictation in this which might well offend a people who have any self-respect; and is there not injustice in thus throwing a burden which you have created upon our shoulders, exhausted in resources as we are by the ravages of a war which you have waged against us? By what moral right do you impose such terms on us?

Soon after the fall of *Mobile*, your bureau took forcible possession of our medical college and transformed it into a negro school—a State institution which had cost upwards of one hundred thousand dollars, and in many respects the best appointed medical school on the continent. In spite of our remonstrances for six months, you still hold possession, with the museum, laboratory, and building all going to destruction. You seem greatly grieved at the thought of turning your black pupils out from such elegant quarters, to make way for the rightful owners, and the white students for whom the State intended it.

This is another instance of the assumption of power and spirit of dictation which is so galling to us, and, therefore, so destructive to your power of doing good. There are many others.

In my professional round every day I hear complaints that the negroes will not work at any price. They are huddled together in shanties around the town, stealing, burning fences for fuel, dying of disease and want, and yet you cannot get a cook or washerwoman at twenty dollars a month. The trouble is only beginning, and to a great extent it is the work of your bureau, to whom the negroes have looked for protection and support. I admit that your bureau has done some good, and desires to do more, but it has been far more an instrument for evil than good. If the black troops had been promptly removed, and your bureau with them, the relations between the two races would have been much sooner and better regulated. There would, doubtless, have been some insubordination among the blacks, and a few would have been shot and hung, but not a tenth part would have been sacrificed that have been and will be under your *régime*. If the outside pressure had been taken off, the labour question, I repeat, by the law of necessity, would have been in better condition than it now is, and in rapid progress towards such regulation as negro labour admits of.

You remarked to me, among other things, that you had never seen a people more anxious for education than the "people of Alabama." There was something in your manner that struck me, and I asked you if you meant by "the people of Alabama" "the negroes of Alabama." You hesitated, and replied, "I said the people of Ala-

bama." I rejoined, "Let me understand you ; do you mean by the people of Alabama the freedmen of Alabama?" To which you replied, "I do."

Now, General, when you take forcible possession of our Medical College, of which we have been justly proud, and pervert it to the purpose of a negro school, and then coolly call the negroes of Alabama "the people" of the State, you insult us, and your bureau cannot expect to effect your purposes in any Southern State, unless you hold us as conquered provinces, and with the bayonet pointed at our breasts.

I beg you not to misunderstand me, for I allude to all this with regret, merely to show you the ground you stand on. No one has more kindly feeling for the blacks than I have, or is more disposed to use every effort to better their condition ; but when it comes to forcing them into a false position, or to elevating them above our own people, as seems to be your policy, you must permit me to warn you against the ill-feeling you are producing among the whites, and the unfortunate effects which must result to the weaker race. History proves, indisputably, that a superior and inferior race cannot live together practically on any other terms than that of master and slave, and that the inferior race, like the Indians, must be expelled or exterminated. In every climate where the white man can live and prosper, he drives all others before him. The history of the Chinese in California is adding another melancholy example to the many which have gone before of the inequality of races.

To my mind, every people have a right of freedom who know how to use it, and I have never hesitated to say, and to print the declaration that I was at heart an emancipationist, but have opposed the emancipation of the blacks in the United States upon the ground that all experiments of abolitionists heretofore had utterly failed to improve the condition of the blacks, and resulted in their gradual extermination. I have shrunk from the horrors which have been predicted, and which are now staring you in the face. I preferred to wait till Providence, in His wisdom, should point out some scheme by which emancipation could be humanely effected. But if the Almighty, through the black republican party, takes the responsibility and exonerates me, I rejoice that the day has come. I am opposed to the slave-trade, opposed to the coolie system, and desire to see this a nation of white men, whatever may be the difficulties on the question of labour. Slavery, though it has had its use in developing the agricultural resources of the south, was becoming a great and growing evil. The four millions of negroes in this country have had no more to do with the intellectual development of the country than mules and ploughs, and we shall advance in real power with tenfold speed when you substitute four millions of progressive population in their stead.

The whole organisation of our social system is soon to be changed ; education will be improved and diffused ; labour will become honourable ; the mechanic arts will be introduced ; agriculture itself will be greatly improved ; in short, all that constitutes power and greatness in a nation. The history of the negro race is simply a page of natural

history—it has no intellectual history, because God has not endowed it with the faculties necessary to preserve written records.

What has been thus far said was intended merely as preliminary to the main topic of discussion, and has led me much farther than anticipated.

Your great object, as I understand it, is to elevate the negro above the condition from which you have removed him, and to place him in every respect upon a full equality with the whites.

The first question, then, to be settled is, the capacity of the negro for self government. Is he capable of taking any part in the march of civilisation beyond that of a mere "hewer of wood and drawer of water"? Does his history afford proof that his intellect is susceptible of any really useful development? These are questions which his past record certainly answers in the negative.

The Duke of Wellington remarked that it was a great mistake to "educate a man beyond his capacity," as it only makes him less contented and more mischievous to society. Yet, with all its risks, education must be disseminated as widely as possible in our race, because we have no means, *à priori*, of determining the grade of intellect of individuals. Every man who reads history will agree, that a very large proportion of the white population of this and other countries are wholly unfit to vote understandingly on the affairs of the nation, to say nothing of bribery and corruption in the lower classes. With regard to the negro race, however, there can be little ground for dispute, as not a single full-blooded negro has ever made a name worthy of being remembered, and in our Southern States, at least, the best educated have been the most vicious. The coloured preachers particularly, as a class, are the worst citizens we have. Two of them in the last week have come under the penalties of the law in Mobile. One, the Rev. Ferdinand Smith, has been sent to the penitentiary for ten years for stealing; and the other, Samuel Gailliard, of notorious character, was shot dead by a United States soldier for resisting the law.* As a class the negroes who cannot read and write are more moral, more pious, more honest, and more useful members of society than those who have received education. Like the Indians, they learn all the vices of the whites without their virtues. A little knowledge is a dangerous thing; "drink deep or taste not," is an old maxim, and the negro has neither the thirst nor the capacity for much of this kind of drink. All the education the missionaries have been able to instil into the native Africans has not been enough to do them much harm, even in Liberia. But these you will say are mere bald assertions, and we shall therefore go on to inquire into the past history of the negro, and see how far facts will sustain the grounds taken.

We have abundant material for following up the dark history of the negro through the stream of time for several thousand years, unilluminated as it is by a single ray of light from his own records,

* The accounts now coming in from the insurrection of Jamaica also show that the coloured preachers are the prime movers of all the troubles and barbarities.

and we shall show that the same physical and intellectual characteristics have marked him from the earliest antiquity to the present day. No naturalist can now be found to contend that through this long period of time any causes have existed to transform one type of man into another—as the white man into a negro, or *vice versa*.

The reader has only to turn to the great works of Champollion, Rosellini, and Lepsius (to say nothing of many others), on the ancient monuments of Egypt, published by the French, Tuscan, and Prussian Governments, to be satisfied of the truth of those assertions. There you behold, copied from the tombs, temples, and other monuments, the life-like portraits of all the races that lived around the Mediterranean four thousand years ago, and antedating the epochs of Moses, Abraham, and Joseph, and even Archbishop Ussher's date of the Deluge. There are depicted the portraits of negroes literally by thousands, as labourers, slaves, traders, etc., with their black skins, woolly heads, peculiar features, etc., as distinctly as if they were drawn from life but yesterday. Not only have we on the monuments the faithful portraits, but we have the mummied bodies, from the catacombs, contemporary with the drawings. Side by side with the negroes we have equally well depicted the native Egyptians, the Abyssinians, the Nubians, the Berbers, the Arabs, the Jews, Assyrians, Persians, and Mongols that still inhabit surrounding countries, thus proving the permanency of all human types when not disturbed by miracles or intermixtures. Of the antiquity, then, of the negro race there can be no doubt—nor can there be a doubt with regard to the permanence of his type; for more than a century past the blacks have been torn from their native land and scattered in America through a wide range of latitude, and still no change has been produced in the colour of their skins, the form of their heads, or their grade of intellect, although there is a law well known to naturalists that very few generations produce all the changes of any importance that change of climate can produce.*

The permanence of his intellectual peculiarities is not less certain than that of the physical. For many thousand years he has had the greater part of an immense continent to himself, with fertile soil, congenial climate, and all the facilities that other races have had for civilising himself, and why has he remained stationary? From the Great Desert to the Cape of Good Hope (the land of the true negro), not a vestige of civilisation is to be found—no remains of art—no ruined temples and cities—no relic of science or literature; and no negro has ever invented even a rude alphabet! His intellect for four thousand years has been as dark as his skin, and all attempts in and out of Africa have failed to enlighten or develop it beyond the grade for which the Creator intended it. The little show of progress made by Mandingoes, Joloffs, and other black tribes of the north is attribu-

* It is true that Lamarck, Geoffroy Saint Hilaire, Darwin, and other naturalists have contended for the gradual change or development of organic forms from physical causes, yet even this school require *millions* of years for their theory, and would not controvert the facts and deduction I have laid down.

table to the Mohammedan religion, and the infiltration of Arab and other foreign blood and arts.

Sir Charles Lyell, who opposed me strongly but a few years ago on this point of human chronology, has recently published a remarkable book entitled *The Antiquity of Man on Earth*, based on geological data, in which he contends that man must have been on earth, not as commonly supposed six thousand years, but something like one hundred thousand, and was the contemporary of animals whose fossil remains have been attributed by Cuvier and others to a former geological epoch! This opinion is now the generally received one in Europe.

Granting this antiquity for man, we know nothing beyond his modern history, commencing with that of Egypt, whose monuments, according to Chevalier Lepsius, carry us back about three thousand eight hundred years before Christ. Egypt, then, is the oldest country of which we have any authentic records; and is regarded as the cradle of arts, sciences, and civilisation, from which all succeeding nations have borrowed their light. In the Bible it is considered a compliment to Moses to say "he was learned in all the wisdom of the Egyptians;" and even his Ten Commandments may be extracted almost verbatim from the Egyptian "Rituals of the Dead." When the Jews first entered Egypt, they found a grand old empire, boasting a long list of Pharaonic dynasties, running back beyond the time of Abraham two thousand years. The Greek historians all point to Egypt as the source from which they drank, and through Greece have more modern nations received their light. The Phœnicians, the Persians, the Assyrians (including Nineveh and Babylon), the Greeks, Romans, Gauls, Britons, and other fair-skinned nations, have all drank deeply from the same stream as it flowed around the Mediterranean through the channels of commerce, and have continued to play their parts in the great work of human progress, when not trampled under foot by barbarian despotisms.

But what has been the history of the negro race during these thousands of years, while others, even the Chinese, the Hindoos, and Mexicans, were marching on, according to the strength which nature endowed them with respectively? In the language of Dr. Robert Knox, of London, "Human history cannot be a mere chapter of accidents. The fate of a nation cannot always be regulated by chance; its literature, science, art, wealth, religion, language, laws and morals, cannot surely be the result of mere accidental circumstances."

While all the nations on the east and north of Egypt were eagerly grasping at her intellectual treasures, why did not the negro, more conveniently situated on the South, in constant contact with her for 2,000 years prior to the time of Homer, reap the same harvest? The works of Champollion, Rossellini, and Lepsius, before alluded to, give innumerable proofs, not only of commercial intercourse of negroes with this country, but that they were regarded as an inferior race and treated as slaves. It is a singular fact, too, that even at this early day, the Egyptians were so far advanced in ethnography as to have clas-

sified mankind into four grand divisions, viz., white, red, yellow, and black, and grouped their portraits together accordingly.*

Commercial intercourse has been the great civiliser. No nation has ever been highly civilised, as far as we know, without it, and no white race has ever failed to respond to its influence.

The Rev. Theodore Parker, who was educated and lived at the "hub of the universe," will certainly be received as good authority on this subject. He says:—

"The Caucasian differs from all other races; he is humane, he is civilised, and progresses. He conquers with his head as well as his hand. It is intellect, after all, that conquers, not the strength of a man's arm. The Caucasian has been often master of other races—never their slave. He has carried his religion to other races, but never taken theirs. In history all religions are of Caucasian origin. All the great limited forms of monarchies are Caucasian. Republics are Caucasians. All the great sciences are of Caucasian origin; all inventions are Caucasian; literature and romance come of the same stock; all of the great poets are of Caucasian origin, Moses, Luther, Jesus Christ, Zoroaster, Buddha, Pythagoras, were Caucasian. No other race can bring up to the memory such celebrated names as the Caucasian race. The Chinese philosopher, Confucius, is an exception to the rule. To the Caucasian race belong the Arabian, Persian, Hebrew, Egyptian, and all the European nations are descendants of the Caucasian race."

This quotation gives a very remarkable ethnographical jumble of greyhounds, foxhounds, bulldogs, pointers, mastiffs, poodles, etc., under one general head of *Caucasian*, little in accordance with the natural history of man; still, it is very well expressed, and shows very clearly that the negro is "left out in the cold," where he properly belongs; according to what may be called the lower law, or law of God.

But commerce, together with the herculean efforts of thousands of missionaries, have signally failed to make any impression on the negro in Africa, the Indians in America, or the dark-skinned races of Oceania.

What has been the history of the half million of free negroes in the United States previously to the late war? They certainly have had abundant opportunities, under the pressure of New England philanthropy, for making some show of intellectual development, and yet we ask where is it? Can any one call the name of a single full-blooded negro, from the time the question was asked, "Can the Ethiopian change his skin or the leopard his spots?" to the present day, who has written a page worthy to be remembered; who has made any improvements in the mechanic arts; who has originated or even successfully copied anything in the fine arts?

* See *Types of Mankind*, p. 84, in which will be found a description of the tomb of Seti-Menephtha I (generally called Belzoni's tomb) of the nineteenth dynasty, and a copy of the drawings alluded to. Similar drawings of the four races occur repeatedly on other monuments. This one of Belzoni dates 1500 B.C.

When we ask for examples of negro intellect, we are pointed to such specimens as Fred. Douglass, President Roberts of Liberia, and other mulattoes. Now, such intellects as those in white men are so common place, that their names would never have been heard of had it not been for the colour of the individuals. But a mulatto can with no more propriety be called a negro than a mule can be called a thoroughbred Arabian horse, or a common cur can be called a greyhound, mastiff, or pointer. Pardon me for using homely illustrations, as I am writing for those who have only studied the "higher law," and have not studied the laws of God as exhibited in natural history. It would be much easier and more agreeable to illustrate the subject, as I have done before, in more technical language. But to resume.

The natural history of the human family runs a curious parallel with that of the canines. The earliest history of the races of men finds each in possession of a race or races of dogs as dissimilar as the races of men, and, like the Teutons, the Jews, the Arabs, the Chinese, the Hindoo, the Negroes, etc., when kept separate for ages, without intermixture, each preserves its original type. Greyhounds, foxhounds, mastiffs, bulldogs are all well depicted on monuments of Egypt, Greece, and Rome, and when bred separately perpetuate their types in all climates where they can live. That climate does modify varieties and species greatly no one will deny; but, on the other hand, no one will contend that greyhounds, foxhounds, pointers or bulldogs would be transformed into each other's types by any change of climate. In America we have all the breeds of dogs and all the breeds of men almost of the earth, and no one believes that the Jew, Anglo-Saxon, Negro, or Indian will change types as long as blood is kept pure. The only fear is that we shall become a nation of curs, fit for no good purpose, if the doctrine of miscegenation be carried out.

Alexander the Great carried the mastiff from Asia to Greece; the bulldog is well depicted in Rome; the greyhound and foxhound perfectly, with other breeds on the monuments of Egypt, as far back as the twelfth dynasty, about 2,300 years B.C. Certain modifications of these types do occur from change of climate, but they are unimportant, as the true type is never lost through its influence. A greyhound is a greyhound all the world over; so with other canines, as well as races of men. Man is the least influenced by latitude of any animal, when his stock is kept pure. The Jews even are a very mixed race, but everywhere over the earth you see the true Jewish type cropping out too plain to be mistaken, and no one who reads can believe that anything short of a miracle can change a negro into a white man or any other type. As before stated, all the races that lived around the Mediterranean 4,000 years ago live there still in the same localities. Egyptians, Nubians, Berbers, Arabs, Jews, Assyrians, Abyssinians, and Negroes, are all clearly portrayed on the early monuments, and have preserved their respective types to the present day.

When the white and black races are bred together a stock is produced, intermediate between the two, both physically and intellectually; they are more intelligent than the blacks, and less so than the whites. It may well be doubted whether intellect enough is

added to the negro by admixture to improve him to any useful degree, while on the other hand it is certain that the white race is deteriorated by every drop of black blood infiltrated into it—just as surely as the blood of the cart horse destroys the beauty and speed of the Arabian racer, or that of the greyhound or pointer is polluted by that of a cur. These are not mere idle assertions made for a special object, but they are stubborn facts that any man may verify who will, and which have incalculable practical bearings on the great questions at issue. Fred. Douglass is unquestionably the most brilliant mulatto intellect now before the public, and he is nothing more than what St. Paul calls a “pestilent fellow.” He has just brains enough to talk fluently about matters he does not comprehend, and to spit out the venom of a blackguard—witness his attack on President Johnson.

Can there be found in history anything more positive than the utter failure of the negro race in Hayti? There the negro was left in full possession of one of the finest islands in the world, having a tropical climate well suited to his nature. At the time the whites were expelled, their successors were left with everything a people could ask for attaining a position among the civilised nations of the earth. A large portion of the population were educated; the system of agriculture was well developed; they possessed a large export and import trade; many of them had been drilled to commercial avocations, to the mechanic and other useful arts; and what has been the result? If a sick man wants a little sugar in this island, which once produced more of the article than any equal territory in Christendom, he now is obliged to send to a druggist to purchase it as he would medicine! Agriculture, commerce, literature, arts, law and order—all are gone, and I was assured a few years ago, by Admiral David Porter, that he, on two occasions, saw negroes roasting and eating Dominican prisoners by the wayside in Hayti! For a time the white blood of the mulatto caste ruled in the land, and with some semblance of semi-civilisation; but the blacks, becoming jealous, exterminated them, and swept every remnant of civilisation from the country, which soon relapsed into savagism. History affords no example where the white race has had such an opportunity and failed, while it affords many where it has advanced in spite of impediments.

There is one illustration to be drawn from modern history, which alone should suffice to demonstrate the difference between races. What was the condition of the Russian Empire one hundred and fifty years ago? A nation of uneducated barbarians, consisting of ignorant, cruel nobles, domineering over hordes of serfs. What advantages had they for commencing the work of civilisation, compared with those of the black Haytiens, except that of race? With one of the most inhospitable climates of the earth; without foreign commerce or contact with civilised nations; cut off from the rest of the world for want of those communications established by modern ingenuity; wanting in the mechanic and other arts; in short, opposed by every obstacle that could obstruct the progress of a people, yet they triumphed speedily and nobly.

In the face of all these difficulties, Peter the Great, though a coarse, illiterate brute himself, following the promptings of ambition, and the instincts of his race, conceived the idea of civilising his people—of making himself and nation great—and had the sagacity to see how his objects were to be attained. He travelled in foreign countries, observed everything he beheld, noted what was wanting, laboured with his own hands in common workshops to learn the mechanic arts, and carried back to his native land the knowledge necessary for the commencement of his grand enterprise. One of his early works was the building of the city of St. Petersburg, in the face of difficulties that would have appalled others, knowing that commerce was one of the leading elements of civilisation. He also established schools, colleges, and other public institutions, and the great work thus begun by Peter has been steadily carried on to the present day by a succession of rulers wiser than any other nation in Europe can boast.

Russia, then, with a white population, ruled by wise heads of their own race, now stands out as one of the foremost nations, wielding a power that keeps all Europe in awe.

Why did the Russian people thus respond to the intellectual stimulus when applied, while the black African races, the Oceanic, the American Indian, and other inferior races, with, in most instances, far greater advantages, through a long series of years, have remained stationary in spite of commercial intercourse and the untiring efforts of missionaries? Even the colony of Liberia, that has for nearly half a century had every possible influence brought to bear upon it, has dwindled to nothing, and is an acknowledged failure. Commerce, money, missionaries, schoolmasters, have been unceasingly and lavishly applied, and all to no purpose. The reason is obvious; it is simply because these races are what God made them, and your bureau can no more unmake, or thwart the laws of nature, than it can pluck the sun from the heavens. "Thus far shalt thou go, and no farther." The Russian, as I shall proceed to show, had an average of nine cubic inches more of brain than the negro, and an intellect ready for producing fruit as soon as the seed was planted.

My lamented friend, the late Dr. S. G. Morton, of Philadelphia, so well known for his great works, *Crania Americana* and *Crania Egyptiaca*, left behind him the largest collections of human skulls in the world, which is still kept in the Academy of Sciences in that city. By numerous measurements of the various races he has established certain facts with regard to the relative size of brains that are now admitted by all anatomists, and which have great significance in connection with our subject.

The following table, copied from page 454 of Nott and Gliddon's *Types of Mankind*, is based on Dr. Morton's measurements, and shows at a glance the relative size of brains of races in cubic inches:—

TABLE. MEAN SIZE OF BRAINS IN CUBIC INCHES.

	Modern White Races.	Mean.	Mean.
Teutonic group	92		92
Pelasgic	84	}	88
Celtic	87		
Semitic	89		

Ancient Pelasgic	88	88
Malays.....	85	88½
Chinese	82	
<i>Negroes.</i>		
African	83	
Hindustanee	80	
Fellahs (Modern Egyptians)	80	
Egyptians (Ancient)	80	
<i>American Group.</i>		
Toltecan family.....	77	79
Barbarous tribes	84	
Hottentots	75	75
Australians.....	75	

The critic might here object to an apparent contradiction, viz.: The fact that the negro, in these measurements, presents a brain about the size of those of the Chinese and Malay, and larger than that of the Hindoo; although greatly inferior to all in intellect. The same objection might be urged in the measurements of the Toltecan and barbarous tribes of American Indians. But the discrepancy is easily explained. The negro, it is true, in the aggregate, has a brain as capacious as that of the Chinese and Malay, and larger than that of the Hindoo; but in the negro the posterior or animal part of the brain greatly preponderates over the anterior or intellectual lobes. In the other races named, the anterior or intellectual lobes of the brain greatly preponderate over the posterior or animal portion. The same facts apply to the semi-civilised and barbarous tribes of Indians.

Now, I am no convert to the details of phrenology; but that certain grand divisions of the brain have opposite functions cannot be denied. All agree that the intellectual faculties are grouped together in front; but whether they can be mapped out, as phrenologists pretend, I will not affirm or deny.

But push the argument to wall, if you please, and call all this speculation; who will deny the broad historical fact, that the white, which are the large-brained races, have governed the world from time immemorial, and have been the only depositories of true civilisation.

The foregoing table affords much food for reflection; it shows a sliding scale of seventeen cubic inches of brain between the Hottentot and Australian at one extreme, and the Teutonic races at the other. The former giving an average mean measurement of but seventy-five cubic inches and the latter ninety-two. The negro races, those from the part of the coast from which slaves are brought* to America, give an intermediate measurement of eighty-three cubic inches, or nine inches less than the average of the whites! These are facts well established among naturalists, though, I presume, not accepted by the Freedmen's Bureau, as its whole action seems based on an opposite assumption.

It is a well known fact, too, even among slave-traders, that only certain tribes of negroes, those of middle grade of intelligence, will

* Mexico affords another unanswerable argument on the question of race. In a population of 8,000,000 there are upwards of 1,000,000 of whites, and the rest divided between mixed bloods and Indians. Does any one believe in their capacity for self-government?

answer for slaves—those from what is called the “slave coast”; and none others have been brought to America, except in the earliest times. The Hottentots and Bushmen at the Cape of Good Hope, are too stupid and sluggish to be made available as slaves, and the Mandingos, Joloffs, and other tribes north are too intelligent and unruly. The fact, too, was notorious that mulattoes, as a general rule, make bad slaves—they had too much intelligence, and their white blood yielded unwillingly to the yoke.

History proves that the negro makes his nearest approach to civilisation in slavery, or some subordinate position among the whites. Whenever, as in St. Domingo and Jamaica, he is removed from the controlling influence of the superior race, and is left to its own instincts, he soon sinks into savagism. Even now, while I am writing, we are receiving appalling accounts of an insurrection in Jamaica, characterised by all the barbarities that always attend negro wars. Fortunately the race is so wanting in intellect that this outbreak must soon be put down by a handful of white British troops.

I beg leave here to call special attention to one of the greatest errors committed by false science and false philanthropy, which has been strangely overlooked, viz. : the idea that the brain of a race, and with it the intellect, can be enlarged or developed by education continued through successive generations, and that the capacity of an inferior race can thus be brought up to the highest standard. That the Hottentot race, for example, by education can have seventeen cubic inches added to his brain, and his intellect brought up to the level of the Anglo-Saxon. It is really astonishing how judgment has been allowed to go by default on this point without examination. I assert without fear in contradiction, that the idea has no foundation in truth, and that the evidence of history is against it.

We have already shown that the negro for five thousand years has been in contact with Egyptian civilisation, and has had all opportunities of other races in the Old World. We have given an outline of the intellectual history of the negro in America; we have shown that the brain of the negro in ancient Egypt was just what it is now; we have shown that his intellectual status there corresponded with his physical organisation; and we have shown that the same permanency of type holds in all the races of men that have lived, and still live, around the Mediterranean; we have shown, too, that when Peter the Great applied the spark to Russian intellects, a century and a half ago, the brains were ready developed, and responded at once.

The barbarous condition of the British Isles, not only at the time of the Roman conquest, but for many centuries after, is well known, and yet the skulls of ancient Britons, disinterred from barrows dating back to the time of Cæsar, cannot be distinguished from those of the English nobles of the present day.* Education has done nothing towards enlarging the brains or expanding the intellect of Britons—the intellect was always there, ready to respond to cultivation—just as Russian serfs are now responding. In Germany similar facts have

* See “Crania Britannica.”

been established—the skulls taken from the ancient barrows of that country are identical with those of the highest class of the present day.

How stands the case with regard to our contemporaries? Will any one pretend that the lower, uneducated class of our time, are less susceptible of immediate education than the children of the highest? Do not the great men of our day spring more often from the uneducated class, or rather imperfectly educated, than from the nobles? The royal families and nobles of Europe have been educated classes for centuries, and what increased development have they attained, or what intellectual wealth have they added to our store? Of all families royal families as a class are the most stupid; and if the House of Peers were not constantly replenished with intellect from the Commons, it would long since have sunk into insignificance. In our country the Clays, Websters, and Calhouns, come from the rank and file.

The inferiority of the negro is practically admitted in our Northern and Western States by the inferior social position in which he is held, and no legislation or arbitrary rules can change it. In the first place, there is a natural antipathy of race which no human power can efface. Then there is a jealousy of the white towards black labour, which it will not tolerate in competition. The whites will not associate with the blacks as equals, and intermarry with them. Some of the States have actually passed laws against the immigration of blacks; and in the face of all this, the “so-called” Republican party are stirring the powers of earth to force upon the South what they will not tolerate at home.

What, then, must be the fate of this unfortunate race? I was born among negroes at the South, have spent many years in the study of their natural and civil history, and feel confident in the prediction that they are doomed to extermination—an extermination which is being cruelly hastened by the unwise action of a party that will not study and comprehend the subject it is dealing with.

The negro has an instinctive and unconquerable antipathy to steady agricultural labour, and must therefore be gradually supplanted by the whites, whose energy, industry, and intelligence will rule in this and all other important pursuits. Negroes are peculiarly gregarious and social by nature, and have an ungovernable propensity to congregate in villages and towns. It is mainly for these reasons that negro population, out of slavery, can never become dense. No necessity can drive them to the kind of industry which is necessary to develop such crowded communities as those of China and India, or even of New England. The whole black population of the immense continent of Africa is not more than double that of the British Isles.

The reader need not be told that none but an agricultural nation can become densely populated when unsupported by foreign commerce, and its capacity is in direct proportion to the extent and proportion of its agriculture. There is good reason to believe that the black population of Africa, like the population of China, was as dense one or two thousand years ago as it now is. In the latter case, where the

population is about 400,000,000, the agricultural resources of the country have long since reached the maximum, and so with its population—all the surplus population must die of disease and starvation. In Africa, over a much larger territory, there are not more than 60,000,000 of blacks, which is probably its maximum as long as the population depends upon the natural products or a hot climate. They rely mainly on fruits, and not upon cereals. The same law of population applies to the American Indian hunters, to the grazing Tartars, and to all nomadic races.

There is another striking peculiarity among the negroes, which must play an important part in the gradual extermination of the race in America. I allude to the want of care for each other in sickness, and the mortality among their children from neglect of their parents. Every experienced physician at the south will bear me witness in this assertion. Whether slaves or free, as a general rule, they will not attend to each other in this time of need. I have a thousand times been compelled to call the attention of owners of slaves to the fact, and to insist that the master should look to the wants of the sick. They will often see a fellow-labourer, and even a near relative, die for want of a cup of gruel or of water rather than lose a few hours' sleep in watching. What may seem still more remarkable to those not familiar with negro character, is the fact that they are untiring in their kindness and attentions to the members of their master's families in sickness. They watch night after night by the bedside of the whites, as if prompted by an instinct like the canine species. Their devotion in this respect is incredible to those who have not witnessed it; and their history shows that the race is a dependent one.

In a newspaper article of such limited extent it is impossible to discuss fully any one of the important points involved; but I have no hesitation in laying down the following conclusions as being easily and satisfactorily demonstrated to any unprejudiced mind, from the written and monumental history of the races, both civil and physical.

I. The intellectual and physical characters of the different races of men were the same as now five thousand years ago, and no causes have existed or now exist that can transform one type of man into another.

II. The physical laws which have governed the races of men during this period of time are precisely the same as those which govern the species, varieties, or types of inferior animals.

III. Without going back to the mooted question of original unity or diversity of species, the diversity of races as it exists can only be regarded as the work of the Almighty.

IV. The negro and other inferior races have never, under the most favoured circumstances, shown any capacity for self-government or civilisation.

V. The negro attains his nearest approach to civilisation among the whites, in a subordinate capacity; and when separated from them relapses into barbarism, as in Hayti and Jamaica.

VI. The brain of the negro is nine cubic inches less than that of the white man, and the large-headed races have always ruled the earth, and been the only repositories of true civilisation.

VII. The idea that the brain of the negro or any other race can be enlarged and the intellect developed by education, continued through successive generations, has no foundation in truth, or any semblance of support from history.

VIII. The races of men, like those of the canines and other animals, though modified by climates, are never transformed into each other. The white man, the Negro, the Jew, the greyhound, the foxhound, the pointer, preserve their types and instincts in all climates.

IX. The blacks, like the American Indians, Tartars, and other nomadic races, are instinctively opposed to agricultural labour, and no necessity can drive them to it.

X. Slavery is the normal condition of the Negro, the most advantageous to him, and the most ruinous, in the end, to a white nation.

Now, sir, I hope you will believe me sincere in the declaration, that in what I have above written I have been actuated by no sectional feeling or blind prejudice. I have asserted no fact which is not established by science and history; have uttered few thoughts peculiar to myself, and none that is not a legitimate deduction from the facts. I have merely given a brief *resumé* of ethnographical history, representing the received opinions of the best informed naturalists of the day. I have done so simply in the hope that I might assist you in your labours and enable you to shape, more understandingly, a course of action which may lead to the ultimate happiness and prosperity of the two races.

I acknowledge that it is much easier to find fault and start difficulties than to suggest remedies, and if you should call upon me for aid, I must say, that while I am willing to assist to the utmost of my ability, my advice can be comprised in very few words. It is this: remove your bureau and the United States troops (particularly blacks) as speedily as possible from our soil, and leave the relations between the races to regulate themselves.

The white people of the South are of the same blood and flesh as those of the North—profess the same religion, and are actuated by the same feelings, impulses, and interests—they, too, are a proud people, jealous of dictation and foreign interference. In due time the negroes will be educated, their poor will be provided for, and they will in every respect be as well cared for by us as by you—but never “on compulsion.”

As long as your agents remain among us, the negroes are buoyed up by false hopes, and deluded by the false promises of wicked and designing men, who create prejudices against their old masters that never existed before, and thus prevent them from going back to honest labour for fair compensation. I say, all this is done by bad men and under the cloak of your bureau, without your knowledge.

If the whites and blacks be left alone face to face, they will soon understand each other, and come to proper terms under the laws of necessity. The planters of the South need labour for their fields, and must and will have it from some quarter. The negroes who are now free to make contracts want employment, and must work or starve. These are plain principles of political economy, which accord with humanity.

The negroes now refuse to make contracts for the coming year, and when asked for reasons, say they have been informed that the lands are to be divided among them, and that they will be branded and returned to slavery if they make contracts with the old slave owners!

Now, who has spread such notions among them we know not, but such are the facts, and as long as your bureau remains, these outrages upon humanity will be committed.

After removing your bureau and the troops, I see but one duty remaining for you to perform, and that is, to assist us in feeding and clothing coloured paupers. The old, the infirm, the women and children, the worthless vagrants, will form a burden that we are unable to carry. As long as women and children were property, and the unproductive child was one day to be a profitable producer, the owners could afford to feed women and children that constitute one half this population. All this is now changed, and the capital of the South is no longer adequate to provide for such an enormous charity. No large farmer in Ohio or Pennsylvania would consent to take ten or twenty negro families, or German peasants with their families, pay them wages, find them in houses, and feed and clothe them for their labour. Nor can we. Of all peasantry in the world, the blacks, on such terms, would make the hardest bargain.

I say then, that you have brought this state of things upon the South, in spite of remonstrances, and you must "pay out" or see the victims of your policy starve.

Very respectfully, your obedient servant,

J. C. NORR, M.D.

Mobile, Ala.

THE ACCLIMATISATION OF MAN.*

Acclimatement. Acclimatement being only the second act of a state of things of which acclimatisation, whether spontaneous or the result of education, is the first act, all preceding considerations are here more or less directly applicable.

It has been said before, that emigrant masses can only be said to have become acclimatised, when, during successive generations, they maintain themselves in such a thriving condition as they would have enjoyed in their native country. By this we understand that the mortality and the increase of the population remain the same as before their displacement, for it cannot be expected that the physical characters should not undergo modification, which without obliterating the primary forms, may vary according to the nature of the new influence. This, in fact, is the consequence of acclimatisation and its guarantee. M. Bertillon consults history; nothing more just, for the teaching of the past may profit the present and the future. Still we possess no positive documents on the acclimatisation of migratory

* Continued from "Popular Magazine of Anthropology", No. i, p. 30.

peoples, so that not long since Omalius d'Halloy asked whether there existed any proofs of the Asiatic origin of Europeans? and M. Broca asked who are the Celts? The very discussions to which these questions gave rise, show that neither of them is perfectly settled. Moreover, admitting that the migrations could be determined, they only proceeded slowly from stage to stage, when again the question of acclimatisation is encumbered with that of fusion, whence resulted a generation of mongrels. Nor have modern times taught us much in this respect, and it is only quite recently that this study has commenced in earnest. At present we are only justified in saying that the acclimatisation of peoples is in direct relation to the similitude of the medium or origin or importation. As a corollary to this fact, we may also say that the acclimatisation of the populations of northern and central Europe is more easily effected in cold latitudes, whilst that of tropical populations succeeds better in equatorial regions, and that between these two extremes, the mediterranean populations occupy intermediate ranks. According to M. Bertillon's table of Algeria, the privilege of nationalities as regards acclimatisation stands as follows: Spaniards, Maltese, Italians, French, Germans. This is quite natural, following the similitudes of the climates, and there was no necessity for M. Bertillon to invoke the intermixture of Moorish blood in the Spaniards in order to explain their immunity from the climate. I need not speak here of the acclimatisation of the French in Nova Scotia and Canada, of that of the English in the northern states of America, of the Portuguese at Rio de Janeiro, and of the Spaniards in Chile, nor of such regions where acclimatisation is null, despite all hygienic precautions; what I shall here treat of is of such regions in which acclimatisation is still in dispute, such as in the Antilles.

The Antilles are situated between the tropic and the 10° N. L., between 61° 75° W. L. Their superficies, the extent of which presents two very distinct geological constitutions: the one primitive, volcanic forming the skeleton of these islands, has by its upheaving produced all the elevated parts, the height of which does not exceed a maximum of 1500—1600 meters; the second, evidently the result of successive alluvia upon such points where the upheavings have been arrested at the sea level, forms a more or less continuous belt, or occupies often an isolated position of their territory.

The elevated districts are covered with wood, the lower portion is cultivated and productive, but the alluvial and lowest districts are most cultivated, and in them are established the great centres of the population in the vicinity of the ports. The seasons present two distinct phases, June and November forming the transition months. The medical constitution is the same in all the Antilles. Marsh fevers, dysentery, hepatitis are endemic; yellow fever is the chief epidemic disease. In the cold seasons pathology assumes a European character, catarrhal affections, influenza, and eruptive fevers, make their appearance. The whole of the Antilles has become the property of European nations, who have exterminated or expelled the aborigines. All these islands have undergone the vicissitudes of

European politics, and have repeatedly changed masters. All present the same elements of population, creoles, blacks, mongrels, and Europeans. All are subject to the same culture, the chief products being sugar, coffee, manioc, and tobacco. It may be said that also in this respect the Antilles present the same medium, and yet the data furnished by M. Bertillon seem to indicate a great difference in regard to acclimatisation.

According to his figures, the white population of Cuba, which amounted, in 1774, to 96,440, had risen to 793,484 in 1861; whilst at Martinique, the whole population, 15,000 in 1740 had diminished to 9500 in 1848. Despite the apparent authority of these figures, they are open to the following objections:—

I. The expression, white population, is not sufficiently definite, for the creoles are not separated.

II. The increase or the diminution of the white population should always be corroborated by documents, as regards immigration or emigration.

III. These figures give us no information as regards the mean duration of life.

IV. No account is given of the respective moral and political condition of the Spanish and French Antilles.

Now by the extent of its surface measuring 300 leagues in length and 30 in breadth, by its relations with the continent of America, by its port of Havana, Cuba is less a dependency of Spain, than a separate power, possessing in its own soil, all those elements which guarantee its prosperity despite of the climate; whilst Martinique, only 60 kilometers in length, and 25 in breadth, is but a dependency of its metropolis. What has just been stated in respect to Cuba and Martinique, applies also to Porto Rico and Guadaloupe.

[To be continued.]

Notes and Queries.

WE beg especially to invite all anthropologists, who are also Freemasons, to aid in procuring the widow of the late Mr. Charles Groves of Wareham, Dorsetshire, a residence in the Masonic Home for Widows. Mr. Groves was one of the Local Secretaries of the Anthropological Society of London, and for the last forty years has been a most industrious and modest pioneer of scientific investigation in his native district.

ON Tuesday evening the session of the Anthropological Society of London was brought to a close, and there was a full attendance of members on the occasion. The President, Dr. Hunt, took the chair, while the preliminary business was disposed of, and introduced to the Society Mr. Harris, the President of the Anthropological Society of Manchester. That town, he said, possesses peculiar facilities for the promotion of anthropological science, and he hailed the establishment of an offshoot of the parent Anthropological Society of London in that town as an important event.—*Morning Post*, June 21st, 1866.

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ON THE APE-ORIGIN OF MANKIND.

By J. McGRIGOR ALLAN.

RIGHT or wrong, theology does profess to solve the grand question of the origin of man. At the British Association, in the year 1866, there were attempts to prove the unity of the human race from scripture, and there is, I believe, a society whose object is to reconcile Genesis and geology. The task which this society has set itself to achieve may be stated in the following quotation from the late Rev. Baden Powell's *Unity of Worlds* :—

“Even at the present day there are not wanting occasional attempts to keep up the hopeless chimera of erecting theories of geology on the Mosaic narrative. It is needless to observe that, as all notion of an accommodation of the facts to the text has long since been given up by all sane inquirers, these attempts are now merely directed to explaining away the sense of the text, in which they no doubt succeed by such principles of verbal interpretation, as if fairly applied to other parts, would readily enable us to put on any given passage any required construction. All inquirers possessing at once a sound knowledge of geology, and capable of perceiving the undeniable sense of a plain circumstantial narrative, now acknowledge that the whole tenor of geology is in entire contradiction to the cosmogony delivered from Sinai; a contradiction which no philological refinements can remove or diminish, a case which no detached interpretations can meet, and which can only be dealt with as a whole.”

It is somewhat difficult now to learn the exact orthodox views on geological and astronomical science. Most educated rational persons have, I presume, abandoned the belief that the universe was created out of nothing, in six days, about six thousand years ago. But the unity of the human species is still with multitudes of educated persons a matter of *faith*, and therefore not a subject of scientific inquiry. In a lecture delivered at the Royal Institution on the 17th May,

Prof. Huxley stated that the adoption of the theory of the origin of species by natural selection does not militate against unity of human species. He "was pleased to be able to show that Mr. Darwin was for once on the side of orthodoxy." The *Reader* of May 26, from which we quote, adds, "but we cannot see that it is so;" an opinion in which I fully concur. In the first place, even if the Darwinian theory favour unity of species, how does it agree with the orthodox views about Adam? Assuredly, orthodoxy and the development hypothesis are at variance on this question. Was the first man a low or high type of humanity? According to orthodoxy, as represented by Mr. J. Reddie at the British Association, Adam was the highest type of man, "created a little lower than the angels;" according to the Darwinian hypothesis, the first man was the lowest type of humanity, being a development from the ape. If we are acquainted with geology and palæontology (whether we admit the doctrine of transmutation, or still cling to the rapidly-vanishing hypothesis of special creations), we must admit that the earliest types of *flora* and *fauna* were the humblest, and that there has been a gradual advance in organisation.

Accordingly, the weight of scientific testimony is decidedly in favour of the conclusions that the first men were low, brutal savages; that progress, not degeneracy, has been the general law governing humanity; and that civilisation must have had a natural origin. These conclusions are flatly negatived by orthodoxy, which professes to believe that the first man, Adam, came direct from the hands of his Maker, and was consequently a perfect specimen of the human species. Unfortunately for this hypothesis, the orthodox, without waiting till it is disproved by science, are obliged immediately to upset it, and contradict themselves in order to account for the origin of evil by the fall. The perfect man, made in the image of God, succumbed to the first temptation and sinned! Is it worth while for men of science to take any trouble about a hypothesis of man's origin which actually refutes itself?

To consider the hypothesis of unity of species on scientific grounds. Is it easier to believe that the Caucasian race has degenerated into the Chinese, the Malay, the American, the Negro—a process which must have taken place if the origin of man according to Genesis be correct; or that the Negro has advanced through these and various intermediate stages up to the Caucasian type? If mankind had only one primitive type, one or the other of these hypotheses of degeneracy or progress must be true. Of the two alternatives I certainly incline to the latter. But am I restricted to these two alternatives? I think not. I conceive it quite possible, and perhaps probable, that neither of these transmutations has occurred. On the hypothesis that mankind may have originated in more than one primitive type (which, I conceive, with Carl Vogt and Dr. James Hunt, to be perfectly consistent with the Darwinian theory), we might regard what are now called varieties, as in reality species of the genus *Homo*, having had distinct and independent origins. Morally convinced of the truth of the Darwinian theory of the origin of man by modification of some pre-existing animal form—selecting the animal whose

structure is nearest to man, the ape—I beg respectfully to differ from Professor Huxley's opinion that this theory warrants the conclusion that man has multiplied on the earth from a single centre of distribution. The Darwinian theory, I conceive, leaves the unity or plurality of human species an open question. But natural selection, and the many phases of variety, of marked and persistent diversity of form, structure, colour, stature, strength, beauty, physical, mental, and moral organisation, languages, customs, religions, etc., which distinguish mankind, favour the theory of more than one centre of distribution.

The word species is sometimes arbitrarily used, and changes its practical application continually with the advance of palæontological, zoological, and botanical science. If by unity of human species we mean to imply the productiveness of all races with one another we are perhaps right, although it may be questioned whether all races of human beings do actually fulfil this condition. But, as Mr. Lawrence in his celebrated Lectures, observes, is not such a definition of species “a *petitio principii* in assuming that animals of distinct species never produce together a prolific offspring?” Will any naturalist affirm that animals which, from their persistent structural differences, we rightly classify as belonging to distinct species, never produce together a prolific offspring? On the contrary, several authentic instances are recorded of domesticated animals of distinct species producing together a progeny which breed, not only with the parent species, but with each other. And with regard to wild animals, we do not possess that accurate knowledge of their habits in a state of nature which would warrant the conclusion that a mixture of species and production of fertile progeny never did, or never could take place.

Let the anthropologist assemble in imagination all the various types of mankind “from China to Peru,” from the equator to the poles; let him note the almost infinite diversities of form, features, colour, etc., which it is the fashion to include under the five great classes, Caucasian, Mongolian, Ethiopic, American, and Malay, and let him conscientiously ask himself this question, “Is it natural to conclude that all these varieties of mankind have had a common origin, have sprung from one stock?” Is the popular belief in one common origin of humanity due to patient scientific investigation utterly divested of prejudice; or to theological dogma triumphant over the mind in the dark ages, and still in an age of so-called toleration, saying, if you do not believe that men sprung from one parent you are an infidel and will be damned to all eternity. Science is not opposed to religion, but utterly antagonistic to theology. It is to science we owe the successful result of rescuing the human mind from the futile attempt to reconcile the phenomena of the earth's crust, the stratified rocks, fossil remains, and the immense variety of human types, with the theory that the earth was only 6,000 years old. Geology is sweeping away the delusion. The comparative anthropologist smiles at the idea that in this brief lapse of time the descendants of one human pair could present such totally distinct

conformations of physical, mental, moral structure; such absolute independence in history, tradition, language, religion, etc.

In the following quotation from Linnæus, which I translate from Professor Huxley's *Man's Place in Nature*, a suggestive hint is offered to the advocate of the human species. "To many it may seem that there is a greater difference between man and ape than between day and night; nevertheless, if such instituted a comparison between the greatest European heroes and Hottentots living at the Cape of Good Hope, they would have great difficulty in persuading themselves that such opposite varieties of mankind could have one and the same origin; or if they compared a noble virgin of the court, highly refined and accomplished, with a savage of the woods, scarcely could they believe that the man and woman belonged to the same species." Compare a low-browed, flat-nosed, woolly-headed, ebony-hued, long-heeled Negro with a fair-skinned, blue-eyed, yellow-haired, large-brained Caucasian, and the natural conclusion would seem to be that types of humanity so opposite to and distinct from one another, were not descended from the same primitive stock. The difficulty is lessened but not removed by the vast lapse of time which geology grants us for the development of so many varieties of mankind. It is undeniable that the distinctions in human types appear to be persistent. Go back as far as we can to the limits of the historical period, and the Caucasian, the Negro, and the Mongolian present the same characteristics as at present. This fact is used as an argument against the development theory, but I conceive that it militates still more against the hypothesis of unity of stock.

If we assume that man is the result of a modification of some Simian form, why should we conclude that such a modification has only occurred in one instance? All scientific investigation tends to assign a warm climate in the region of the tropics as the birth-place of man. The equatorial regions are the habitat of the Asiatic and African anthropoid apes, and as they multiplied and extended their geographical distribution, so, in obedience to the doctrine of natural selection would be the possibility of the development of man. Granting these premisses, and the fact of so many distinct and persistent types of men, we are not, I think, warranted in confining the origin of primæval man to one centre of distribution. On the hypotheses of several centres of distribution we could attribute the most decided peculiarities of human types (which it is difficult to account for by the agencies of climate, diet, and other conditions of existence) to natural distinctions inherited from the parental animal from which each human variety or species sprung. Nay, more, I would venture to ask, is the idea quite unworthy of consideration, that we may see in the four kinds of man-like apes, gibbon, orang, chimpanzee, gorilla (classified as distinct species, and by some as distinct genera), the modern representatives of the progenitors of four great types or *species* of mankind? So far as pride of ancestry is concerned, it matters little, I think, if we once accept a Simian origin for mankind, whether we Anglo-Saxons, a branch of the great Caucasian race, have arrived at our preænt culminating position by a progressive and

upward advance, through the various stages of Australian, African, Malay, American, Mongolian. Or whether, independently of such gradations, the original Caucasian type was transmuted directly at a very remote period from some animal form.

It may throw some light on the hypothesis of a plurality of human species originating in several centres of distribution, to remember or learn, as the case may be, that there are white apes as well as white Negroes. From William Smith's account of a mandril, published in Mr. Huxley's *Man's Place in Nature*, I take the following extracts: "Their bodies, when full grown, are as big in circumference as a middle sized man's; their legs much shorter, and their feet larger; their arms and hands in proportion. The head is monstrously big, and the face broad and flat, without any other hair but the eyebrows; the nose very small, the mouth wide, and the lips thin. The face, which is covered by a white skin, is monstrously ugly, being all over wrinkled as with age; the teeth broad and yellow; the hands have no more hair than the face, but the same white skin, though all the rest of the body is covered with long black hair like a bear. They never go upon all fours like apes, but cry, when vexed or teased, just like children."

The writer was made a present of one of these animals, "a she cub of six months age but even then larger than a baboon," and gave it in charge to one of the slaves to feed and nurse it, being a very tender sort of animal, but, in the absence of the proprietor, the sailors loved to tease it, to see its tears, and hear it cry. "One who hurt it, being checked by the Negro that took care of it, told the slave he was very fond of his countrywoman, and asked him if he should not like her for a wife? to which the slave very readily replied, 'No, this no my wife; this a white woman—this fit wife for you!' This unlucky wit of the Negro's, I fancy, hastened its death, for next morning it was found dead under the windlass." Mr. Huxley thinks this animal was, without doubt, a chimpanzee.

Great stress is laid by opponents of the ape-origin of man on the apparent fact that the anthropoid apes are not the most intelligent of the monkeys. Mr. Crawfurd said at the late meeting at Nottingham, "Man is derived from a monkey."—(laughter)—"What monkey? There are some two or three hundred monkeys, and they are all different. Some have more teeth than others; some have tails, and the monkeys who have no tails, although they approach nearest to humanity in shape, are the stupidest fellows of all."—(laughter.)—The biggest monkey is the biggest brute of all, and that is the gorilla. He allowed my friend M. du Chaillu to shoot him, and did nothing but roar. I have seen a monkey with a tail a yard long beat an orang-outang, which is the nearest approach to man of any animal in shape. But it is mere shape, nothing else. He has not half the intellect of a Scotch colly dog." Now, I would simply ask, how long have we been acquainted with, and what do we yet actually know of, the natural history of the man-like apes to warrant these wholesale depreciations of their intelligence? The strictures of Mr. Crawfurd appear to be ably refuted in the following extract from the *Arcana of Science*, 1832:—

Sagacity of the Orang-Outang.—Orang-outangs, it has been remarked, have exhibited no greater degree of intelligence than a dog. This, generally speaking, is, I believe true, but then let us bear in mind the comparative advantages in relation to his connexion with human society, that the dog possesses over the orang-outang. Companionship with man is to the dog a state of nature and gratification; he is "to the manner born." Not so the poor orang-outang, left, perhaps, when an infant or very young, and unable to provide for itself at some spot, while its mother wanders in another direction with the intention of returning by and by to lead him home. A Sumatran or Bornese forester passing that way sweeps him off; and the little creature that had been accustomed to active gambols in the wild wood (to say nothing of change of diet, and climate, and water) is henceforth transferred to and confined to a small enclosure, where its movements are circumscribed, where he is perhaps chained; and never like the dog, solaced with the society of its kind; where, in short, his whole system and habits must undergo a change consequent on slavery, and where his faculties have not their fair field for development. How is it to be expected, under such circumstances, that an orang-outang child (for all the orangs to descriptions of which I have had access were supposed to be very young) should be more intelligent than the most intelligent of all the inferior animals, the full-grown dog in the prime of its faculties and strength, naturalised to a state of connexion with human society, and unhappy save under such circumstances! The orang, however, untaught, will do what a dog, I suspect, cannot be taught to do, and untaught, cannot think of doing; he will untwist or unravel his chain or cord. If the dog is chained, and the chain becomes jammed between things lying about, or twisted upon itself, the animal drags hard at it away from the point of entanglement, perhaps increasing the evil, becomes alarmed—cries out, and never thinks of slackening the chain, etc. Not so the orang; the moment such an accident occurs he deliberately sets about putting matters to rights. He does not drag away from the point of resistance, but instantly slackens his chain, as a human being would do under like circumstances, and goes back to see what occasions the obstruction. If the chain has got entangled with a box or any other article of furniture, he disengages it; if it has become twisted, he considers the matter and untwists it. It may be said that the possession of hands gives the orang advantages that the dog has not, and so undoubtedly it does; but it is not natural for an orang to be chained, and the whole process evinces that he thinks or reflects upon the predicament he has got into, which the dog apparently does not, but loses his presence of mind. I have a monkey chained in my compound (*Simia entellus*), but when his chain becomes entangled or twisted he does not get himself out of the scrape like the orang, but, like the dog, makes matters worse by dragging impetuously.

I beg to inquire of the opponents of the ape-origin theory, if they were treated as men treat the anthropoid apes; that is, stolen in infancy and brought up in solitary confinement, whether they would not in all probability grow up very stupid fellows, and perhaps merit the

title of big brutes? Perhaps if a loaded gun were pointed at a man of science, he might roar as well as the gorilla. I concede that the gorilla's face is more brutal and ferocious than those of the chimpanzee, the orang, or the gibbon. But they are all very human, especially if we compare them with savage not civilised human beings. It is possible the gorilla may represent the progenitor of some low savage cannibal tribe either of Africa or Australia. At the same time, in justice to the gorilla, we should remember that we have only recently made his acquaintance, and, as it is not easy to visit him in his home, the impenetrable jungle of Equatorial Africa, we really know very little about him, and ought not to condemn him hastily on account of his personal appearance. One thing, however, we do know in his favour, that he is not even a carnivorous animal, far less a cannibal, and is in this respect superior to the human savage. I also admit that the facial expression of some of the smaller monkeys is more gentle and human than that of the larger man-like apes. Nor does this admission appear to militate against the hypothesis of the ape-origin of man. I have been sometimes positively startled by the human look of the smaller, and of the infant monkeys which can be studied in living individuals in the Zoological Gardens, and also in stuffed specimens in the British Museum.

There is also a very remarkable analogy with the human structure in the form of the skull in the young apes, which the reader may verify by comparing the skeletons in the museum of the College of Surgeons. The ape-child, like the human child, has a skull far better developed compared with the facial bones than in the adult state. Moreover, in the child-ape's skull we can observe all or most of the sutures which are to be found in the human cranium, and which it is the tendency of advanced age to efface. But in the adult ape's skull these sutures disappear. The various bones become consolidated, and in the gorilla skull the sutures are not only entirely effaced but their localities defined by large bony excrescences or ridges which, while greatly strengthening the cranium, add much to the brutal appearance of the animal. Thus, not merely in the conformation of the young and adult skull, but also in the expression of the features in youth and maturity, there are remarkable analogies between the ape and man. Who has not noticed, not only the comparatively large size of the child's skull as compared with the face, but the mild, gentle, beautiful expression of childhood and youth, compared with the strongly-marked features of manhood and the wrinkles of age. How common is it to see a comely youth or girl grow into a coarse-featured plain man or woman. The nose becomes large, the eyebrows heavy, the mouth voluptuous, the jaw bulky, while in the man, like many other male animals, the chin, upper lip, and cheeks become plentifully covered with hair. The resemblance of human faces to certain animals, the animal expression of the human features exactly in proportion to the absence of the refining process of education, and the existence of instincts, appetites, passions common to man and the other animals, are matters of trite observation to many who, however, refrain to draw from them the legitimate conclusion that man in the method of his

origin does not stand apart isolated and demarcated from the rest of the organic world, but in all probability inherits those physical, intellectual, and moral attributes from an animal progenitor.

DR. MOORE ON THE FIRST MAN.*

DR. MOORE'S book on the *First Man and His Place in Creation*, is the most melancholy production we have met with for a very considerable time. The perusal of this work by a student of science alternately produces feelings of pity and indignation. We pity a man who is obliged to look at questions of facts through such a medium as the author is apparently obliged to do, and we are no less indignant at the language he has employed regarding men of science who have chosen to see and proclaim facts in their true light. We pity the author, too, when we find he possesses such a facility of stringing together sentences devoid of all true scientific thought or feeling; and we are at the same time indignant that a man who professes to write "from a Christian point of view" should bring charges against men of science which betray a spirit of "envy, hatred, malice, and all uncharitableness" against those who differ from him.

Considered as a book of science on the subject of which it treats, we are bound to pronounce it altogether a most contemptible and trashy production. But the work is not without interest to the anthropologist. A perusal of these pages will shew him the sort of food which is provided for the "intelligent British public" by intelligent but unscientific scribblers, of which our author is an excellent type. This work is of the same tone and character as some of the productions of a recently formed semi-scientific semi-missionary society, called the "Victoria Institute". Some few years ago, a book of this sort would have done some amount of mischief. At that time the author might have found a few more or less scientific persons who would have been inclined to think well of his production, and who might have mistaken the incoherent rhapsodies of an ill-regulated mind for the true results of Positive science. At present, however, the portals of science are much better guarded than formerly, and the only people likely to mistake this work for the production of a true man of science are some of our third-rate provincial newspaper editors, elderly females of both sexes, and Sunday-school children.

We may, perhaps, indicate the character of a work avowedly written, "on the principles of science and common sense", by extracting a few passages as specimens of the "science and common sense" which it contains. Mr. Crawford will here learn for the first time that he

* "The First Man and his Place in Creation, considered on the Principles of Science and Common Sense, from a Christian Point of View; with an Appendix on the Negro." By George Moore, M.D., etc., Member of the Royal College of Physicians, London. Post 8vo, pp. 384.

agrees with Carl Vogt, that "men are descended from different typical stocks of apes". We are told that the most eminent scientific men of the present day teach "that human nature is unique, of only one genus and species". Carl Vogt will learn with astonishment that he "acknowledges that there is a unity in mankind at present". Professor Huxley is informed that he is one of the "kind of smaller philosophers now prevalent" (the author might have added, like the rinderpest and cholera). Dr. Hunt will learn that he is not "disposed to be fair to the Negro". He will also be surprised to learn that "there is no question that even the lowest classes of Negroes in Africa possess the same kind of moral affections and mental faculties as the finest Europeans. They are capable of the same emotions and the same thoughts". We especially commend these statements to the attention of Sir Samuel Baker, and to those who have read his picture of the Negro in his own home. French anthropologists will learn with regret that a Negress has "a soul more loveable than M. Pruner-Bey by many shades of soul colour." This must surely be meant for a joke. Our author is not only able to tell the colour of souls, but has the gift of prophecy largely developed, of which his statement, that "Captain Speke would have been hanged in Jamaica", is a specimen.

The following specimens of the author's opinions on many scientific questions give a very fair indication both of the author and his work.

"It is true that there are at least a hundred thousand different species of living creatures, and among them some very nearly approximate to others; but, then, they are never known to cross, however they may touch the line between them. Everything is possible but such confusion in God's work. Every possible variety of living thing is, or has been, on the earth, because, in the work of Omnipotence whatever can be, is, in fact, but contradiction such as transmutationists conceive can exist only in their own minds, and these only because confusion is there" (p. 89). . . .

"Speculative science, however, comes in with liberal surmises, and puts a full stop to common sense by asserting that there is no necessity for supposing the necessity of limits at all, for what produces any variation *may* produce all varieties in species and kinds, if you give it *time enough*. In short, this sort of surmising, falsely called science, sees no reason to believe that God created things in their order, but only, at most, breathed life into a primordial life-*mucor*, in order that order might come out of it in *time*" (p. 93). . . .

"All this is truism; but it need be reiterated, since men, narrowed by false science, would fix man's place *in nature* and forget that he is *supernatural*; for he can pervert nature, and in will and work resist the teachings of his Maker, and turn the means of good into causes of evil perhaps for ever" (p. 102). . . .

"Not to believe in the relationship of the human soul, by some direct and especial mode of derivation from the Creator, is to feel ourselves without kindred with spirits, and left to the desolation of a purposeless existence, the sport of the elements; a part of nature appearing for a while to be re-absorbed in the inexorable play of physical affinities, to be as if we had never been, or as unconscious atoms in

the revolving universe. It is because we are conscious beings, living souls, inspired by the divine breath, in some especial manner, that we are shocked by such philosophies as that of Dr. Büchner, who would have us believe in a world without a Maker, and in man but as a passing form of physical accident, in whom love to God and man is but a pleasing mockery and delusion. With the licence of an inebriated eloquence, aiming only to be inipious, and with a mad logic, without any but false premises, Dr. Büchner discourses loosely as if he comprehended Force and Matter; and while unprepared or refusing to account for his own personality and his power to question heaven and earth, he purposely excludes God and the human soul from any place in the universe, and multiplies words only to persuade us that nature is an endless consequence without a cause, having a destiny without design, and governed by laws without a will that may revoke them, or a wisdom that enacted them. A possibility of change for higher purposes towards perpetuated beings is a conception beyond such philosophers. The cant of false philosophers is deeper than the cant of common hypocrites. They pretend to bow to materialistic destiny—should this exist—forgetting that, if it do, they can never know. They are so extremely impartial, so sublimely self-denying, as to assume their own value as equal to zero, and of less significance than a grain of sand in the universe. Truly, the way of such proud prostration is equally hard and hardening" (p. 131).

The above quotations are very fair average specimens of the work, and such passages our readers will see do not require any condemnation from us. Indeed, the whole book chiefly is remarkable for the injury it does the cause of science. If Darwinism is to be successfully refuted, it must be by very different means to those employed by our author. Such an attack as is contained in this book renders a positive service, not only to Darwinites, but also to the entire scientific world. The Darwinites may properly laugh to utter scorn such attacks, and men of science, while differing in opinion on many scientific points, yet become united in their efforts to expose the gross absurdities of such a book as this. We should be very glad if we could see a single redeeming feature in this work, but we cannot. We, however, willingly give insertion to the following summary of the contents of the book,* by the author.

"The writer's aim in this work has been to indicate the weakness of all scientific attempts to explain the origin of man, and at the same time to show that the first was necessarily the highest style of man, and that all we know of our own nature is consonant with the language of Holy Writ in respect to man's *genesis* by distinct creation and endowment; the fall of man and the divine method of restoration being essential parts of the true philosophy of humanity. It is here shown that man's bodily formation, as well as his mental and moral peculiarities, preclude the possibility of his derivation or development from any inferior creature. The various hypotheses of man's origin; the morale of man and brute; the nature and source of speech; the life,

* From Longman's "Notes on Books", Sept. 1866.

spirit, breath of man; the Divine idea in each man and in all humanity; the creation of parentage and personality; the place and state of the first man in relation to the varieties of the human family; the bearing of moral law on free-will; the relation of man and woman; the institution of labour in respect to man's dominion over nature, and his advancement in the culture of all his endowments are considered at large, without the use of formal method and technical phraseology; the conclusions arrived at being a conviction that the earliest ideas recorded concerning the origin and destiny of man are in perfect keeping alike with the facts of real science, the demands of common sense, and the principles of true philosophy. The peculiarities of the Negro, as the most striking variety of man, are separately investigated, and accounted for in a manner to demonstrate that he is not a lower *species* of man, but that his history, both as enslaved and as free, proves him possessed of mental and moral qualities which place him on the common platform of humanity, as capable of becoming estimable as a man and a Christian as any other variety of the human race."

The drollest chapter in the book is that which bears the enigmatical title "Man not Anatomic". What on earth Dr. Moore meant in this chapter, we cannot say: we are inclined to think with Johnson, in the *Rehearsal*, "Mean! what do'st talk of meaning for? Why, he never meant anything in his life!" Still, "Man not Anatomic" is a tempting title. We knew that there was one man at least in the world not anatomic, i.e. not an anatomist—namely, the learned author of this book. We expected an autobiography, at the very least, from this chapter; yet, we were agreeably disappointed when we merely encountered a few critical remarks on Pope's *Essay on Man*, and a small amount of scissors-and-paste extracts from Sir W. Hamilton, Tennyson, Mr. Hallam and Neander.

The author says, "How Lamarck came to enjoy the reputation of being sane, is surprising." We are still more surprised to see such words in any book bearing the name of a respectable publisher. It behoves all scientific men to guard well the character of those who have gone before them. Men of science have yet to teach such writers as our author that, however much they may differ from some of the opinions of a man like Lamarck, they nevertheless revere his memory as one of the greatest and most philosophical naturalists who ever lived. To hint at insanity in our opponents is, unhappily, not usually the sign of a healthy mind: but, fortunately for our author, "there is no rule without its exceptions". Psychology must ever be an interesting branch of anthropology. We shall not follow the example of our author, and express surprise that anyone should enjoy the reputation of being sane; we shall, however, learn something of the mental idiosyncrasies of writers of books respecting the first man "from a Christian point of view".

Our author states, "It is often said that 'the merciful man is merciful to his beast'; but that is a mistake. Beasts cannot commit crimes, and therefore they do not demand mercy."

We are shocked at this want of orthodoxy on the part of an author

who, to judge from his habitual studies, was probably ignorant where the proverb is to be found. Nor can we agree that beasts do not demand mercy of us; and we are compelled to admit that they do occasionally commit crimes, of which theft is the most frequent.

We shall be very sorry to rob Dr. Moore of any reputation he may possess for science, sanity, sense, or Christianity. We are, however, fully convinced that, if brutes do not demand mercy, men and women do; and in consideration to them, we shall not dwell further on this book. The author, unhappily, has not had the same consideration for us, as he has given us twenty-four chapters, occupying 324 pages, together with an appendix on "The Negro". In his preface he asks "But is a book on this subject really wanted?" "Yea, certainly," he answers, "if anybody is likely to become the least the better for it."

From this we see that we have been somewhat unfair to the author; and if he comes before us as a moral philosopher and a philanthropist, we withdraw our censure on his book, as such subjects do not come within our sphere. We have, however, considered the work in the words of the title, "on the principles of science and common sense", from a scientific and common sense point of view. We would especially recommend our author to imitate our example, and he will find himself able to write a much more sensible and useful production than the volume before us, which we now commit to our library of Historical Anthropology, labelled "The First Man from a Christian Point of View. 1866."

In conclusion, we would advise that, if this work should be consulted by Sunday-school teachers, they should correct the orthography of the following names of men of science. Rudiger Wagner (Rudolph); Rana (Dana); Pritchard (Prichard); Quatrefage (Quatrefages); Grattislet (Gratiolet); W. J. Marshall (J. Marshall); Vivien (Vivian); Tristrem (Tristram); Hunter (Hunt); Crawford (Crawfurd); Dunne (Dunn).

The following statement also deserves embalming, as it illustrates the author's reverence for fact, or want of appreciation of the ninth commandment. "Mr. Hanson, who read a very intelligent and interesting paper at the Association meeting at Swansea in 1848, was also a Negro"!!!

OUR BRITISH ANCESTORS.*

THIS work is the production of a country clergyman, rector of a parish in Gloucestershire, on which long barrows have been discovered. Science having been brought thus to his very threshold, it behoved him to find out what science was. The results of the process are seen in the volume before us.

The author states that he was led to the present inquiry by what "appeared to him the remarkable coincidence that the names by which the British tumuli, at the investigation of many of which he has assisted, are still popularly called for the most part by the titles, little if at all corrupted by the lapse of ages, of the divinities worshipped in the ancient mythologies of Canaan, Chaldæa, Babylonia, and Assyria, those cradles of the human race, such as we find them recorded in Scripture, and treated of at large in the interesting essays and notes on the Assyrian and Babylonian Pantheon appended to Rawlinson's Translation of Herodotus. Finding, therefore, a certain similarity of language and of religion, the conclusion seemed inevitable that there must be also some ethnological affinity between people so circumstanced."

Once this fancy was in the author's brain, he followed out the clue to its utmost. He found the Hebrew word *Lilley* in Hertfordshire and elsewhere; *Beor* and *Beer* occur in Devon, Dorset, Essex, Hants, and Somerset; *Abram* occurs at Wigan; the *Aven* of *Ezekiel* and *Hosea* is repeated at *Aven* and *Avening* in Gloucestershire; *Aven* in Wilts, etc.; and *Ham*, wondrous to relate, occurs in Kent, Surrey, Wilts, Essex, Somerset, etc. Could examples be better chosen to prove that the aboriginal population of all England were Jews? Why he does not add *Edenbridge*, *Southwark* (*Seth-orech*), *Marybone* (*Mara-owen*), and a host of similar instances, we do not know; they might not certainly be conclusive, although they would add fresh lustre to the blaze of pedantry which glitters through the volume. The amount of Hebrew quotation which appears is something appalling. "Horrent spiculæ" (as Sir William Hamilton would call them) of Chaldee and Syriac bristle across the pages; we presume for the same reason as the peripatetic in *Micromégas* quotes Greek, "because one should always quote that which one does not understand at all in the language which one understands least."

A most unfortunate confession is made by the reverend author. He says, "Nearly at the conclusion of his researches, the writer fell in for the first time with Mr. Jacob Bryant's *Analysis of Ancient Mythology*, Faber's *Dissertation on the Mysteries of the Cabiri*, and Mr. Godfrey Higgins' *Celtic Druids*, and was surprised to find in how many particulars his views are corroborated by the etymological and mythological inquiries of these laborious authors. It has given him additional encouragement to find how much, while in ignorance of their labours, his own views have run parallel with the investigations of those

* "Our British Ancestors; who and what were they?" By the Rev. Samuel Lysons, M.A., F.S.A. London, 1865.

learned men, who would only have rejoiced in the confirmation of their views supplied by modern discoveries."

"In ignorance of their labours!" Modest Mr. Lysons! Not content with letting his readers find out for themselves with perfect ease, how inaccurate are his facts and how slipshod his arguments, he actually confesses that the greater portion of the work was written "in ignorance of the labours" of the only three authors, except Dupuis, who have thrown light on this subject. The process of writing a book first and consulting authorities afterwards, is unusual we admit; and one in which few may care to imitate Mr. Lysons. His printer having apparently told him that some space existed at the end of the work which it was desirable to fill, he has contributed a list of authors consulted and referred to in this work. Even *Scapulae Lexicon* and *Stephani Thesaurus* are immersed in this slough of despond, alongside with Jerome, Procopius, Hooker, and Evelyn on Forest Trees! The art of artificial quotation is carried to such an extent herein that we can only attribute the origin of this list to the following cause. The author put down all the books he had read in a list; and finding the number very small, then put down the names of books which he had not read. Prudently he stopped in this vast undertaking.

When considering the origin of our British ancestors, the opportunity of having a hit at the transmutationists was too good to be lost. Accordingly, we have a vehement diatribe against these unlucky men, some of whom might not only derive the Rev. Mr. Lysons from some type of harmless ruminant, but might even hint that at present he had not progressed much above that level. He says: "Imagine only for a moment, if it were not blasphemy to suppose it (but we are compelled to such a line of argument by the reasonings of these philosophers) imagine only the whole creation summoned before a gorilla to have names assigned to the assembled creatures."

We are very sorry that Mr. Lysons should have to blaspheme on our account; we would really have thought, from the tone of certain passages in this work, that the art came naturally, and did not require much effort. The real difficulty, however, is, if we do imagine such a scene as that Mr. Lysons has supposed, whether if one of the assembled creatures coming up to be named by Mr. Lysons' hypothetical gorilla, had had peradventure the author's book under his arm, or in his mouth—what scale in the animal creation would have been allotted to such a very stupid animal?

As a matter of course, the flood accounts for all geological phenomena connected with the early history of man. If mammoth and human bones are found together in a cave, why of course the flood did it. If man and hippopotami are found together in undisturbed drift, the flood did that too. If the remains of Romans and Britons are also found in a cave, with remains of existing animals, we think the flood must have laid them side by side together. It is true that there is a chronological difficulty, and that Roman and mammoth remains were not precisely contemporary; yet Mr. Lysons has not alluded to this in his book, and apparently feels no doubts himself.

The author ostentatiously refers, on his title-page, to "craniology."

We certainly expected to see some evidence of the application of craniology to elucidate the "traditional history of the early Britons," and was curious to discover whether the method of research which Mr. Lysons has so inefficiently applied to philology, could by any possible means be more successful in anatomical analysis. Our disappointment may be imagined when we find that the sole craniological facts in the work are not the author's own, but are comprised in a letter from Dr. Thurnam, in which the human remains from the Rodmarton long barrow are described, and conclusively proved to be Celtic (whatever that may mean), of a lengthened oval or dolichocephalous type. Therefore, the following syllogism represents Mr. Lysons' argument. Some Celts were dolichocephalous; the Jews were dolichocephalous; therefore, all Celts were Jews. Logic and anatomy are here fully on a par.

The philosophical value of his argument may be seen from a few instances. The English word *animal* is not derived from the Latin *anima*, but from the Welsh *anivel*; *benediction* is not from *benedictio*, but from *benedith*. We select the following ludicrous examples from Mr. Lysons' vocabulary. We have ourselves added the Latin.

English.	Welsh.	Latin.
Breeches	brechan	braccæ
Cere	cwyr (wax)	cerum
Cement	simmant	cementum
Charity	cariad	caritas
Clergy	cler	clerici
Cloister	clâs, clôs	claustrum
Creed	cred	credo
Cucumber	cucumer	cucumis
Defender	diffynwr	defensor
Disciple	disgybl	discipulus
Ecclesiastic	eglwyawyr	ecclesia
Excommunicate	ygyymuna	excommunicatio
Fidelity	ffyddlon	fidelitas
Flagellate	ffangell	flagellum
Flagrant	ffangell	flagrans

Other examples are quite as ludicrous; *e. g.*, *hatchment*, according to Mr. Lysons, is derived, not from Norman-French, *achèvement*, but from Welsh, *achenydd*, genealogy; *kerchief* is not from *couvre-chef*, but from *cwrsi*; *merchant* not from *marchand*, but from *marshiandwr*. And so the tedious vocabulary waddles through a dozen weary pages.

The author thus expresses his scientific creed:—

"I confess I have no sympathy with those who would trace our origin to the gorilla or the ape, and still less with those who give it the far less intelligent or intelligible origin of the oyster."

We are glad to learn that the transmutationists have only three great divisions,—I. Those who trace man's origin to the gorilla. II. Those who trace it to the ape (the gorilla being not an ape). III. Those who trace it to the oyster. But if the syntax of Mr. Lysons' sentence is construed correctly, the point for solution is not the history of man's origin, but "the intelligible origin of the oyster." What relation the genesis of this useful mollusk can possibly have to the history of "our British ancestors" we cannot possibly see. No doubt

Mr. Lysons intended to be very witty ; and if he had understood anything of what he meant, the passage would have been intensely ludicrous. Let us, however, hear Mr. Lysons' declaration of faith. "I confess that I am quite satisfied with my descent from Adam, and through him from my native clay, unimproved by any transition whatever, either through crustaceans, saurians, molluscs, reptiles, or brute beasts whatsoever." The above order of succession is certainly a little peculiar. We can assure Mr. Lysons that indeed the transmutationists do not transpose the *échelle continuë* of Bonnet so as to place crocodiles below snails.

If the above work had not appeared in some sort of scientific guise ; if it had not been reviewed, although with an unanimous voice of condemnation by the scientific press, we should have deemed it unworthy of notice. The author is certainly a man who, like Margites, has learnt a great many things, and recollected them all wrong. Intolerance and assumption mask the profound ignorance which is conspicuous in every page. Yet the work is one admirably fit for the semiscientific public of the nineteenth century. Large masses gaping for excitement, caring not what mental *pabulum* is provided for them, gulping down crude science which they can neither digest nor assimilate ; a hierarchy of half-educated *savans* cramming this multitude with useless and nutritious food ; such an audience and such teachers form the denizens of the temple of science. Amongst these Mr. Lysons' book, which neither teaches nor amuses, will *sell*. The ignorant will buy ; and he who really wishes to study the anthropology of our early British ancestors may wait until more wholesome literature is provided him.

NEGRO EMANCIPATION IN AMERICA.*

By J. H. VAN EVRIE, M.D.

DURING the Mexican war, I became deeply interested in the mongrel population of the great cities of that country, and where, unless a foreigner, there is scarcely a single white man, Indian, or Negro, to be seen among a hundred thousand people. These abnormal populations, with their singularly vicious and disorganising tendencies, are dying out, while the unmixed rural populations are increasing ; and, as I even then saw that European influences were rapidly impelling us in the same direction that had so broken down the barriers of race and deteriorated the grand old Spanish conquerors, I naturally, as a physiologist, became profoundly interested in the momentous subject. Since then, and for some fifteen years, I have devoted all my time and capacities to the specific character and natural relations to the human races, especially those inhabiting this continent ; and, as this

* We have been favoured with a copy of a letter, addressed to President Johnson, by Dr. Van Evrie, so well known to anthropologists for his careful observations on the Negro race.—EDITOR.

necessarily involved their moral as well as physical adaptations, I may presume, without vanity, to say that I understand the subject of "slavery" better than any other living man. With this belief, and profoundly conscious that, however honest and patriotic in intention, most of the public men of the North are acting under a fatal misconception of this so-called slavery, and the country drifting to destruction, I have ventured to address you, with a painful, a most awful, conviction of the perfect truth of the facts and inductive facts presented in this letter.

Five years ago, the American people were the freest, the most moral, progressive, and prosperous the world ever saw. Providentially blessed with a subordinate race in their midst, the founders of our political system were able to reject those artificial distinctions of class common to the Old World; and with the natural distinction of race, fashioned by the hand of the Eternal, as the basis of the political system, they secured that natural equality for our own race also fashioned and fixed by the same Almighty hand. Eighty years of faithfulness to the system founded by Washington, secured a boundless, almost a fabulous prosperity to all, and opened happy homes to millions of victims of European oppression. We were virtually free of that greatest of human calamities—a national debt; we had sixteen thousand millions of property, some eight millions of producers, a monopoly of cotton production, the largest commercial marine in the world, and only needed more tropical territory to relieve the rapidly increasing Negro population of the transition States, and secure a monopoly of sugar and coffee production, to place ourselves at the head of all the nations of our time, and to (morally) dictate laws to the world. In brief, five years ago we were the happiest and most prosperous thirty millions of people in Christendom; and the four millions of subordinate Negroes were so vastly and immeasurably happier than any other four millions of their race, that no words in our language can fitly express it. We are at this moment the most demoralised, burthened, distressed, and nearest ruined people the sun ever shone upon; and, unless we recover our reason and retrace our steps, we are lost beyond the hand of resurrection to save us.

We have a public debt more burthensome than that which has degraded the masses in England into mere beasts of burthen. We have "used up" more than half the property accumulated in eighty years of prosperity; we have destroyed the cotton production; our foreign commerce has virtually disappeared; we have at this moment barely two millions of reliable producers or labourers proper; and industrially considered, for the time being, as completely obliterated the entire country, from the Potomac to the Gulf of Mexico, as if it were swallowed up by an earthquake. In brief, if the entire American people, with one common accord, had sought to blot themselves out from the records of human history, and had universally set to work for that purpose, it may be doubted if they could have done more than they really have accomplished within the past five years. What mighty and malignant demon is it, then, that in so short a period has worked out this stupendous ruin of a great and hitherto sensible people? It is

Abolition—a mad and impious effort of human creatures to abolish the natural distinctions of race fashioned by the hand of God, and equalise those He has made unequal. True, multitudes of patriotic and well-meaning people believe that the war was waged to restore the union of the States, and other honest multitudes fancied they were fighting against that union; but as every man now knows that Mr. Lincoln had only to abandon the “principles” of his party, and pledge himself to administer the government on the principles of his predecessor, and of all his predecessors, to end the “secession” movement at any moment he pleased, the next generation will have no trouble about the matter, and without a dissenting voice will declare that the war was waged to “abolish” the distinction of “colour”, and mongrelise the country. To the next generation, and all future generations, however, it will be a marvel and a mystery, not how a majority or a considerable class became such lunatics, but how one single native-born American could be so benighted and bewildered as to strive for equality with the lowest of all the races! We have these Negroes before us every day; our senses show us that they differ from us as absolutely and as widely as the crow differs from the eagle; and reason and experience tell us they are subordinate, grown-up children, perpetual minors, with an intellect corresponding to that of a white lad of twelve or fifteen; and our instincts so utterly forbid mongrelism, that the most besotted lunatic in the land would rather see his child dead at his feet than practise his own theory; and the two races are so radically different in the elementary atoms of their organic structure, that amalgamation is permanently impossible, and the disorganised mongrel progeny dies out within certain fixed limits. Or, in other words, God has so utterly and eternally forbidden this hideous devilment of “impartial freedom”, that it is forbidden to exist, and the fourth generation becomes absolutely extinct. Thus, were a thousand abolitionists to honestly live out their professed belief, and, each mated with a Negress, were to isolate themselves in some island of the Pacific ocean, a hundred years hence they and their progeny would disappear utterly from the earth polluted by their sins. Or, if Massachusetts had as many Negroes as whites, with the same laws of “impartial freedom” that she has now, and some outside power saved them from the immediate massacre of each other, it would only be a question of time when the entire population would rot out and die; as absolutely perish by the poison of “impartial freedom”, and as utterly disappear from existence, as if there had never been a human creature in that State.

But, though future generations will find it difficult to understand the cause of the great delusion of our time, to the present one they are obvious enough. It is an exotic, wholly foreign and monarchical; and, were we isolated from the rest of the world, “abolition of slavery” would be an impossible conception to the American mind. They are all of the same race, all white people in Europe, and, ignorant of Negroes, naturally suppose them beings like themselves; and as European society is based on artificial distinctions of class, there is an “irrepressible conflict”, and it becomes a vital and overwhelming

necessity of European governments to break down the natural distinctions of race in America. Mr. Calhoun, in his famous despatch to the American minister at Paris, when commenting on Lord Aberdeen's declaration that it was the policy of England to "abolish Negro slavery" throughout the world, assumed that it was designed to give England a monopoly of tropical production through her East Indian possessions, and so it was; but, beyond this mere commercial consideration, they were impelled by an instinct of self-preservation, which teaches the statesmen of England that they must break down American democracy, based on the natural distinction of races, or it will react on Europe, and sooner or later sweep away the old, effete, and artificial foundations of monarchy. Hence, Pitt and Wilberforce, under the mask of philanthropy, began their crusade against an imaginary slavery, and the universal misconception of the European mind in respect to Negroes enabled them to enlist the aid of the liberals; and Fox, and Robespierre, and John Bright, and even poor old Garibaldi, have blindly done their utmost to break down the natural distinctions of race in America, and thus to overthrow the cause they have at heart. The vast influence of European opinion, the books, the writers, and publications—in a word, all the vital forces of European society, and the overwhelming necessities of European governments, for seventy years have been arrayed against the foundations of American democracy; and, after the destruction of a million of Negroes, the blight and ruin of the great central regions of this continent, and the expenditure of some four hundred millions of money, their efforts have legitimately, if not directly, resulted in the great American catastrophe—the forcing of four millions of Negroes from their normal condition into unnatural relations with the white people, and the consequent overthrow—if not final destruction—of society in one half of the country, and a mortgage of four thousand millions on the bones and muscles of the other half.

Such are the causes, and such the effects, of the great abolition delusion of the century—a delusion that, had not an issue been made against the Union *per se*, possibly would never have reached such gigantic dimensions, or produced such fatal consequences, but which is certain to work out immeasurably greater calamities in the future, if not bravely and honestly grappled with now. It seems almost providential that you, a Southern man, a democrat, and hitherto manifesting a profound sympathy with the masses, have been placed at the head of the nation at this great crisis of American affairs; and, if equal to the circumstances that confront you, you may become the "foremost man of all this world", and scarcely second to Washington, for you will have saved the system he created. You have only to administer the constitution as you yourself understand it, to remove the foreign pressure from the subjugated States, and leave them to govern themselves and to provide for the subordinate race that Providence has entrusted to their care and guidance, just as they have always done, and just as their own experience, sense of justice, and natural right may prompt and the common constitution guarantee, to restore industry, order, and prosperity everywhere south of the Potomac,

within the next ninety days, and to render your own name immortal. But if you quail before the abolition madmen, then, like all who deal with lunatics, you are lost, and the country with you, for years to come; for they will force a conflict of races, national bankruptcy, and universal misery, ending at last just where this devil's dance began thirty years ago, in the utter extermination of abolitionists as well as abolitionism from American soil. One way or the other—either through years of anarchy and suffering, or through their reason—the people will have the “Union as it was”, for nothing else save perdition is possible; and on you alone, Mr. President, it rests to determine the mode.

BÜCHNER'S SCIENCE AND NATURE.*

THE work before us is probably destined to as great an European circulation as the author's equally celebrated *Kraft und Stoff*. Englishmen however are too content to deny facts until they have no other resort open to them, and then to fall into the wake which continental scientific men have already traced out, to accept the conclusions of Dr. Büchner before they have been ventilated in our popular assemblies. The ladies and gentleman who, at the British Association meeting at Nottingham, listened with rapt attention to Mr. Grove's excellent address; heard with mute acquiescence his forcible plea for the doctrine of continuity of force; or admired the ingenuity by which the transmutative theory was supported by him, thought—at least many of them—that it was English ability that had led to the discovery of the great laws that vivify Nature, and that regulate the arrangement of inorganic, and the succession of organic living things. But when we reflect on the fact that Germany has for the last twenty years enjoyed the practical blessings of this teaching, and that men like Büchner have there stood boldly forth in the vanguard of positive science, and have worked hard and taught thousands, great though our pleasure may be at hearing such sentiments as those of Mr. Grove enunciated before an English audience, and even applauded in the hypocritical arena of social life; we must not forget to own the deep obligations that we are under to our German teachers. England, ever neglectful of its scientific men; sacrificing truth to the dictates of an absurd conventionalism and honesty at the shrine of what has been termed “social ethics”; glad to snatch hastily information at the hands from any continental teacher, and oftentimes from the worst among them; England, in spite of all our boasted progress, may and should blush when she stands amidst the scientific nations of the world. The hateful system of artificial morality in which the last three hundred years have enveloped our popular scientific teaching; the fitful and uneasy

* “Science et Nature, Essais de Philosophie et de Science Naturelle. Par le Docteur Louis Büchner. Traduit par Augustin Delondre. Paris: 1866.

desire which our instructors express to teach all men everything, and to learn nothing themselves ; the incubus of scientific untruthfulness which lurks in the core of all branches of human knowledge ; all keep back England from stepping forth and assuming that scientific position which she has a right to occupy. When we see such works as Büchner's *Kraft und Stoff*, or the present volume proceeding from the presses of our German fathers in science ; when we contrast them with the wretched efforts of the so-called "liberal" school in England, we must be aware that we have much to unlearn and much to learn. England cannot justifiably taunt Dahomey or Lapland with their neglect of science. The only and most effectual method of liberating our minds from the state in which we now are, is to give up entirely that miserable optimism which would persuade us that we are happy and good, or that everything around us is so perfect and comfortable, that it cannot be mended. Content is a very good state of mind to prescribe to the dissatisfied. There is not the slightest doubt that a cow chews the cud more peacefully if it is lying down. The philosopher in *Candide* consoled the men whose houses were destroyed in the earthquake by saying, "Things cannot be otherwise than they are ; everything is for the best ; if there is a volcano at Lisbon, this volcano is not anywhere else ; it is impossible that things should not be what they are, because all is very good".

Dr. Büchner, in his essay on the *History of the Creation and of the Destination of Man*, certainly fixes no limit at which the future perfectibility of mankind shall stop. He admits, as all must, that there is room for improvement ; he points out that we are not entitled to assume any limit at which this improvement may cease. And he thus states his belief :—

"It is most probable, that in the whole universe, there is nothing persistent, and that each isolated entity, from the ephemeron who only lives one day to the celestial bodies who survive for millions on millions of years, is produced by Force from the bosom of the universe, thereunto come back at last, returning its eternal indestructible atom to produce new worlds and new natural beings." According to Büchner, science knows of no other destiny of man ; and they who have other notions of immortality may reconcile them as they best may with the facts, or leave them unreconciled and irreconcilable. Perhaps the last course is the best for all parties. It is a little curious to see how closely the new scientific ideas of the indestructibility of matter accord with the old faith of the "resurrection of the substance" (*carnis resurrectionem*) of our ancestors, which it has been the fashion for the mediocre theology of the last few generations to ignore and to misunderstand. The eternity of matter is, or ought to be, as certain a part of any religious faith as any other. Yet it has become a conventional fashion to deny the advocates of the eternity of matter, as if necessarily they expressed an opinion respecting the nature and eternity of "spirit". Of course the definitions of the latter substance or principle have a tendency to vary, in an inverse ratio to the progress of metaphysics or anthropology.

The most amusing of these scattered opuscula is perhaps the one

in which Dr. Büchner treats of the gorilla. In this short chapter he has summed up nearly all that is known respecting this gigantic ape, whilst he lays great stress on the moral characters, such as love for offspring, etc., which this animal exhibits—characters which, without doubt, are absent in some of the lower races of man. Dr. Büchner says:—

“We may suppose that there existed at one time intermediary links which diminished or bridged over the abyss now existing between man and ape, and which links have passed away. . . . M. Schaafhausen of Bonn, has called our attention to the startling fact, that we see before us the abyss existing between man and animals continually augmenting, and the distance which separates them gaining in extent. Not merely the lowest human races which present some resemblance to the animal organisation, die out and become extinct; but the apes of the higher order which most resemble man, become each year more rare. In one or two more centuries they will probably be amongst the species entirely extinct. It is only in the neighbourhood of wild people that the species of apes of the most elevated organisation are preserved even now; face to face with civilised peoples, they have for many years disappeared in the same manner as we see the savage races of man at the lowest end of the human scale, disappear rapidly when they encounter civilisation.” “Is it not logical,” says Schaafhausen, “to think that, if we could look back amongst the millions of years that have passed away, we should find the distance much smaller between the lowest man and the highest animals than it is at present, and if we could look further back still, we should find it yet more small. The more the development of man progresses, the more does he shorten the links which bind him to the brute creation. How striking is the fact that the greatest apes of Africa and Asia are distinguished from each other by the same characters which distinguish the races of men of the two countries, and especially by their colour and by the form of the skull. The orangoutang is brown, and has a round head like the brachycephalous Malay; the gorilla is black, and possesses a long skull like the dolichocephalous Negro of Africa. The resemblance which is thus made by putting two different races of men in parallel with equally distinct species of apes of the same respective country, appears to constitute the most important objection, which in the existing state of our knowledge, we can make against the unity of the human species.”

The above argument is, indeed, a strong one in favour of polygeny. In the hands of Agassiz, who has often employed it, it has probably deterred many from accepting the monogenist hypothesis. Yet we should not forget that it is an argument which should be used with caution. The argument from colour is far more strong than the argument from the conformation of the skull. It should never be forgotten that, as Deslongchamps has pointed out, when the skulls of the young gorilla, chimpanzee, and orang are placed side by side, at a period of life before the enormous development of bony crests in the first and last species have obscured the true cranial conformation, we see that real difference does not exist; nay, the young orang has actually a

slightly longer skull than the young chimpanzee. On the other hand, we must not undervalue the argument from colour, which, on the derivative theory, gives indirectly much key to the variation of human colour. The presence of fossil apes of a high organisation (*Dryopithecus*) in France during the Miocene period is a most significant fact, which may perhaps throw more light on the origin of European man than we at present see. It must not be forgotten that *Hylobates* and *Pithecus* are more closely allied than *Pithecus* and *Troglodytes*. So we may observe that the distinctions which prevail between Malay and Negro are greater than those between Malay and European. Africa is the great country of baboons; and it is Africa that has the highest anthropoid apes. Gratiolet has proved that the gorilla more closely appertains to the cynocephalic stirps than to the type which culminates from the guenons through *Hylobates* to *Pithecus*. The *Hylobate* type is found fossil, but individuals of the *Troglodyte* type are as yet lacking to our palæontologists. Africa has not yet been geologically surveyed. The comparison of the areas inhabited by the lowest man with those inhabited by the apes, however, reveal to us the fact that in Australia, where humanity appears to be at its lowest level, there is not a single species of ape; and that from the peculiar nature of the *fauna*, it is not likely that any monkeys in a fossil state will be discovered.

The essay on Theodor Waitz's *Anthropology* is a remarkable production. The following interesting passage occurs therein:—

“Waitz assigns to the presence of the human genus on earth a very great age, far exceeding that which is devoted to the historical period, although the indications which have been recently discovered of fossil human bones ought provisionally, in his opinion, to be left in doubt. As regards the inquiry, whether in the earliest ages there existed a more ancient human genus, possessing an organisation analogous to that of the apes, Waitz thinks himself able to reply in the negative. He is strongly against the idea of admitting zoological or botanical provinces, or of the so-called ethnic centres!! (*Schöpfungsmittelpunkten*), of which the idea has been especially supported by Agassiz.” Büchner goes on to say, “Professor Schaafhausen proves that nearly all the human crania found up to the present time in stratified deposits, simultaneously with the bones of extinct animals, present a primitive and slightly developed conformation resembling that of the apes.”

Whether this statement is precisely the fact we feel considerable doubt. The chief ancient remains, genuine or not, of man, in the pleistocene, are, I. The Engis skull; this is certainly not a low type. II. The Neanderthal skull, an abnormality probably produced by synostosis. III. The Moulin-Quignon jaw, quietly sleeping in the Paris Museum of Natural History; genuine or not, it is certainly not “simious.” IV. The specimens discovered by Dr. Dupont in Belgium, but of which the description is not yet published. With the exception of the last case, not one of these fossil men presents a single character which can be said to be “simious,” or to tend in any way towards the discovery of the “missing link.” We therefore think,

that so far as regards this point, the balance of evidence is rather on the side of Waitz than on that of Büchner. Dr. Büchner concludes his essay in the following words:—

“It is to be regretted that Prof. Waitz was led by his profession as a philosopher to formulate his programme of questions in an order which does not respond to the actual requirements. The question of *unity of species* of man is and remains an idle question, and does not present any likelihood of being solved, until the idea of species shall have been determined in a fixed manner. Until the present time this question has never been formulated in science from the empirical point of view, but the questions of *unity* or of *plurality of origin*, which is more practical and more clear for the healthy intelligence of man have been discussed. Waitz separated these two questions in a thorough manner, but he cannot nevertheless prevent that they may ultimately agree, and that no reasonable ground can be seen on which we can rely, when reconciling the unity of species with a plurality of origin. If the differences between the races of men are in reality of such a nature that they can be all explained by successive insensible modifications of one corporal and intellectual type, and if the theory of botanical and zoological provinces is inexact, why then admit a plurality of origin? But if the contrary is true, why should we not recognise that the human genus has presented itself, since the beginning, under the form of many entirely different types? And if the question so often agitated, of the unity or the plurality of the origin of man presents up to the present time as little perfect of a definite solution, founded on actually demonstrated arguments, as the question of the unity of species. Waitz, as we believe, would have acted better, and been more satisfactory, if he had maintained his ancient disposition of the order of questions. Further, we ought not to forget to observe to him, that in spite of the great number of probable reasons, collected and classified by him with a care most rare, the idea of naturalists properly so-called, lean more and more every day to an opinion contrary to his, and especially that as Vogt observes, all the naturalists who have travelled, are ranged on the side of the defenders of the plurality of the human species.”

Dr. Büchner's plea on behalf of the polygenists is certainly ingenious. We coincide with him that until we have some clear and intelligible definition of the word species, the discussion as to the unity or plurality of origin is perfectly useless. We have never yet encountered six persons in our lifetime who had original and distinctly defined ideas of the meaning of the word species, and agreed amongst each other. The decision of the majority would be simply an appeal to prejudice or to ignorance. If you ask a man what he understands by the word species, he will inevitably tell you that “Cuvier says this,” or “Darwin is of opinion that.” He has no clearly defined ideas himself, and can communicate none. This defect in anthropology proceeds from a mistaken view of the nature of the science. The uninstructed imagine that the problem of the origin of man is the great fundamental question of science. Should any future discovery enable one to offer a probable theory of man's origin, many members of the public would

imagine that there was nothing else left to discover in anthropology. The moment, however, that it is distinctly conceived that the forces, whatever they may have been which have produced other living objects, have also produced man, persons will perceive that their attention, instead of being directed on the genesis of man alone, must traverse the whole range of zoology and palæontology before they can be able even to speculate with any rational ground on the origin of man. We have a little too much tendency in England to divide labour ; and as the manufacturer who makes buttons looks down with almost contempt on the manufacturer who makes button-shanks, so the anthropologist very often systematically ignores the work done by the zoologist.

The work in all comprises twenty-seven essays, most of which relate to metaphysical questions. Still, reference to the above passages will quite show the importance of the anthropological matters on which it treats. There is a certain nervous epigrammatic elegance about Dr. Büchner's style which renders it especially fascinating ; whilst the clear logic of his argument forces everyone who dispassionately reads him to admit its justice. The present work is evidently destined to play an important part amongst modern scientific literature. We trust we shall soon see it in an English dress, when it will be certain to receive a large circulation, not merely amongst general scientific men, but especially amongst anthropologists.

ACCLIMATISATION OF MAN.*

I do not assert that the acclimatisation of Spaniards is not more easily effected in the Antilles than that of the French ; the climate of Spain would induce me to admit this. I merely wish to show that the acclimatisation of the French is not so difficult as M. Bertillon would make us believe, and that if it has not so well succeeded, it must to a considerable extent be ascribed to moral and political circumstances We must carefully study the media and also the physiological condition of the Creoles, to give an opinion on acclimatisation in the Antilles, and not trust to figures which may mislead us despite their mathematical precision.

On examining the European on his arrival in the Antilles, we find at first that the respiratory organs, by increased activity, endeavour to supply the diminished oxygen of the atmospheric air, the general circulation is accelerated, giving rise to congestions in the nervous system, the abdominal organs, and the integuments, congestions which are further favoured by alimentation, heat, and electricity. Under the influence of their activity, hunger increases ; thirst can scarcely be quenched by means of iced drinks, so rapidly are the fluids carried off by an abundant perspiration. The internal absorption is also very

* Continued from No. iii, p. 120.

n, subject to yellow fever, typhus, and marsh fevers, and present the same mortality.

Mimmonot said that his strictures on the synonymy of *acclimatation* and *acclimatement* were not addressed to M. Bertillon in particular but to their general use. As regards the figures given by M. Bertillon he himself admits that they were taken, *en bloc*, without distinction of races; he would, therefore, trust rather his personal experience than documents, and would affirm that the average number of births in the Creole families of Martinique is greater than it is in France. The real cause of the depopulation of Martinique was the ruin of its industry, by numerous causes, political and economic, which perfectly explain a diminution from 150,000 to 9,500. As regards the French Antilles the requisite conditions, and it will be like the Spanish Antilles.

M. Sanson, with reference to the statement that the Romans had left behind them prosperous colonies, observed, that Liebig has in his recent work given an explanation of this fact. The Romans did not cultivate the soil, and only fixed themselves as colonists where they found native labourers. As to the importance of commixture of blood in acclimatization, it rests upon slender foundation. Whatever may be the proportion of immigrants, if there is intermixture, the type of the immigrants would disappear unless kept up by reinforcements.

M. Bertillon: In contesting the aptitude of the Spaniards for colonization, M. de Mericourt told us that the troops of that nation presented the same mortality in Mexico and Cochin China as the French; but we must distinguish the mortality at the beginning of a campaign, which is the same for all. He had taken the Spaniards wherever he found them after a long stay, and he everywhere met with the same results. As regards the theory of M. Sanson on the absorption of the immigrated type by the native type, it aids the hypothesis of the commixture of blood favouring acclimatization. Of what ethnic element, for instance, is composed the population of Spain? Of Lusitanians, who, according to Eichhoff, came from Africa; of Syro-Arabs and Moors, upon the *ensemble* of which were engrafted some Indo-European branches. Is it, then, astonishing that this African blood, so largely infused in that of the Spaniards, shows itself so vigorous in Africa?

M. Broca: The probability of a Berber origin of the race now peopling Spain is greater than that of an autochthonic origin. It is very possible that when the Straits of Gibraltar were an isthmus the same races inhabited the south of Spain and the north of Africa. I may here mention that the Basque crania in our collection approach in several features the Berber type.

M. d'Avezac: I should have wished that, in noticing the prosperity of the Spanish colonies, mention should have been made of that proverbial sobriety which contributes not a little to facilitate acclimatization.

Anthropological News.

THE Anthropological Society of London will hold meetings during the next quarter on the 6th and 20th of November, and on the 4th and 18th of December.

The following is extracted from the *Chatham News* of December 24, 1864. "On the 19th instant, at St. Margaret's Banks, Rochester, Frederick Kilmore, aged 2 years and 4½ months, son of Dr. Frederick James and Harriet Landels Brown. He died of hooping cough and inflammation of the lungs and brain. In lineage he represented the United Kingdom, for he was five-eighths English, one-quarter Irish, and one-eighth Scotch (his father being half Irish and half English, and his mother being three-quarters English and one-quarter Scotch). He was descended from a family of Irish Scots that have cultivated their own land at Tollanacre and Kilmore, in county Down, Ireland, in unbroken succession from the time of Charles I. to the present day."

Dr. H. Rónay, who is so well known in the scientific circles of London, where he has resided in exile for fifteen years, has just returned to his native land by special permission of the Emperor of Austria. Dr. Rónay is the author of two works on anthropology, one of which was published in 1847 and the other in 1864. Both of these works are in his native language, Hungarian. The title of the former work translates thus: "Characterism of the English, French, Hungarian, German, Italian, Russian, and Spanish nations, of man and woman, and of the different periods of human life from a psychological point of view"; and of the latter, "The Origin of Species, Man's Place in Nature, and the Antiquity of Man". Dr. Rónay is a leading member of the Hungarian Academy at Pest; and we believe he will, in conjunction with the Local Secretary of the Anthropological Society of London for Pest, at once take steps to inaugurate a special department for anthropology in that academy.

DISCOVERY OF STONE COFFINS.—Several weeks ago some human bones were found in a sandhill about a mile from Torpichen, Linlithgowshire. On Saturday last the hill was examined by Professor Duns, New College, Edinburgh, Mr. J. R. Martin, of Bridge house, and a couple of workmen. A partial examination showed that many cists are probably contained in the mound. One had very recently been exposed, in the course of carting away sand for building purposes. Another was opened on Saturday, and found to contain a human skeleton. Dr. Duns took possession of the skulls found in each. The character of the crania gives the chief interest to the discovery. They have evidently belonged to full-grown individuals; yet both are comparatively small. The bones of the eyebrows are largely developed, and those of the forehead sharply recede. The cists had been placed at a depth of about 2½ feet from the surface. The bodies must have had the legs bent up at the knees, and in both cases the bones of the feet were found near those of the hands, lying beneath the thigh bones. The sandhill in which these cists were discovered is about 100 yards from one of the stones which mark the boundary of the ancient "refuge" connected with the "commandery" of the Knights of St. John at Torpichen.—*Scotsman*.